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STUDIES IN THE HISTORY OF MEDIAEVAL SCIENCE

BY

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IN HARVARD UNIVERSITY

SECOND EDITION



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PREFACE

THE history of European science in the Middle Ages is twofold. On the one hand it is concerned with the recovery and assimilation of the science of antiquity, little known at first and only gradually brought into the West, to some extent as enlarged by the Arabs, in the course of the twelfth and thirteenth centuries; while on the other hand, it has to take account of the advance of knowledge by the processes of observation and experiment in western Europe. The first phase deals primarily with translation from the Arabic and the Greek, in Spain, Sicily, North Africa, and the East, as a preliminary to the full assimilation of these successive increments of ancient learning and the Arabic additions thereto. The second, more obscure, has to trace the extension of knowledge by such means as the observation of plants and animals, especially dogs, hawks, and horses, the actual treatment of disease, geographical exploration, and the growth of the experimental habit. On both these sides a consecutive and comprehensive history still remains to be written, while at many points monographic investigation is entirely lacking.

Toward the materials for such a history the present volume is meant to offer a contribution. It is limited to the twelfth and early thirteenth centuries, the period of scientific revival, and to certain specific topics worked out primarily from the manuscript sources. After a survey of the place of Spain in the introduction of Arabic science into Europe, the pioneers of the new learning are studied in the person of Adelard of Bath, tutor of King Henry II, that extraordinary traveller in distant lands and student and translator of the mathematics, astronomy, astrology, and philosophy of his time, and in his immediate and little known succes-

sors, Hermann of Carinthia and Hugh of Santalla. The astronomy of the computists and of the Platonists of Chartres is then noted as the background for the reception of the Aristotelian physics and the Ptolemaic astronomy in the course of the twelfth century, and the coming of the new astronomy and mathematics is illustrated in detail by the series of scholars who brought them to England. Some account is given of the modest part of Syria in the transmission of Arabic knowledge. The Greek phase of the mediaeval renaissance is then examined, and illustrated in detail by a study of the Sicilian translators which brings into fresh relief the significance of Sicily as a centre of diffusion for Greek mathematics, astronomy, and philosophy. A parallel movement is traced in northern Italy in the person of Latins resident at Constantinople, who brought to the West something of the stored up knowledge and superstition of the Byzantine capital. Then the court of the Emperor Frederick II is presented on its scientific side as the meeting-point of these Greek and Arabic currents, and as a fruitful centre of inquiry and experiment, as seen particularly in the writings of the emperor's adviser, Michael Scot, and in Frederick's own treatise on falcons, a highly characteristic product of this extraordinary mind. Other studies deal with the introduction of the abacus into the English exchequer, with Syrian astronomy and western falconry, and with a list of textbooks which sums up the curriculum of the close of the twelfth century. Of the ancient authors upon whom mediaeval learning depended, special attention is given to Aristotle, Ptolemy, and their influence, without neglecting Plato, Euclid, and the Greek physicians.

This series of studies was planned and in large measure written before the appearance of Lynn Thorndike's *History of Magic and Experimental Science* (New York, 1923), largely even before the publication of Pierre Duhem's *Le système du monde de Platon à*

Copernic (Paris, 1913-17); but much use has been made of both. While the present volume traverses portions of the larger field covered by each of these more ambitious works, its point of view remains distinct. Thorndike's chief interest is in magic taken in the broadest sense; Duhem is primarily concerned with tracing cosmological ideas; whereas the present volume approaches mediaeval science from the point of view of the general history of culture in the Middle Ages, and thus touches other phases of science as well as philosophy, classical learning, and even institutions in their relations to science. It is designed in the first instance as a contribution to the history of the mediaeval renaissance and the influence of eastern culture upon the West.

While the effort is to advance knowledge at critical points rather than to tell a continuous story, the chapters have been grouped so as to bring out the general connection, while three general chapters (I, VIII, XII) sum up the present state of our information on the Spanish translators from the Arabic, on Greek studies, and on the court of Frederick II. Certain of these chapters are new, I, II (largely), III, V, VII, X (largely); others which have appeared in various journals in the course of the past fifteen years have been carefully revised, and in most instances extended as the result of further investigation. Each chapter is based, in part at least, upon unprinted sources and brings to light a certain amount of material not previously known. Most of this research has been performed on the spot, but it has been greatly facilitated by photographic reproductions. These photographs of manuscripts were made possible by grants from the Woodbury Lowery fund of Harvard University; they are available for the use of other investigators in the Harvard Library.

The list would be long of the many scholars who have aided my researches, but for special help in relation to manuscripts I must mention particularly His Eminence Cardinal Ehrle and Mon-

signori G. Mercati and A. Pelzer at the Vatican; Mgr. L. Gramatica at the Ambrosian; Comm. I. Giorgi of the Biblioteca Casanatense; the late Professor Eduardo de Hinojosa of Madrid; Señor E. Hurtebise of the Archives of the Crown of Aragon at Barcelona; MM. Henri Omont and Lucien Auvray at the Bibliothèque Nationale; Mr. J. A. Herbert at the British Museum; Dr. H. H. E. Craster at the Bodleian; Mr. R. Livingstone of Corpus Christi College, Oxford; the Provost of Eton; Professor J. S. Reid at Cambridge; and Professor Clemens Baeumker of Munich; besides many other librarians and scholars from Lisbon to Vienna and from Edinburgh to Palermo. For other forms of suggestion and assistance I am especially indebted to my master, M. Charles-V. Langlois, who was good enough to review certain chapters in the *Journal des savants* in 1919; Dr. Reginald Lane Poole, to whom no student of the twelfth century ever turns in vain; Mr. C. C. J. Webb, and Dr. Charles Singer; Dr. A. Birkenmajer, of Cracow; Dr. F. Liebermann, of Berlin; Professor J. L. Heiberg of Copenhagen; the late Professor H. Suter of Zurich; Professor R. Sabbadini of Milan; Professors D. E. Smith of Columbia, D. P. Lockwood of Haverford, L. C. Karpinski of Michigan, and Lynn Thorndike of Western Reserve; and to my colleagues Messrs. Maurice De Wulf, E. K. Rand, George Sarton, E. C. Streeter, and H. A. Wolfson. Mr. George W. Robinson, Secretary of the Graduate School of Arts and Sciences of Harvard University, has rendered invaluable assistance in correcting the proofs and has prepared the index of proper names.

This book is dedicated to three friends who in my early years, one as teacher, two as fellow-students and colleagues, contributed most to the formation of my ideals of scholarship.

CAMBRIDGE, April, 1924.

PREFACE TO THE SECOND EDITION

THE necessity of reprinting has given opportunity not only to correct certain printers' errors in the text, but also to make the following additions and corrections, which are the result partly of further research and partly of suggestions made by reviewers and others.

December, 1926.

ADDITIONS AND CORRECTIONS

CHAPTER I

PAGE

4. Mention should be made of the work of those scholars who ascribe to the Arabs of Spain an important influence on European music. See J. Ribera, *La música de las cantigas* (Madrid, 1922); and H. G. Farmer, "Clues for the Arabian Influence on European Musical Theory," in *Journal of the Royal Asiatic Society*, 1925, pp. 61-80; as well as his further studies in Arabic musical MSS.
5. On the relative influence of translations from the Arabic and translations from the Greek, cf. my paper on "Arabic Science in Western Europe," in *Isis*, vii. 478-485 (1925).
- 11, line 11. Read: 'Plato's dated versions.'
- 15, n. 46. The Alfonso who translated Averroës is placed in the fourteenth century by Birkenmajer, *Vermischte Untersuchungen* (Münster, 1922), pp. 17, 212.

CHAPTER II

20. F. Bliemetzrieder announces a considerable volume on Adelard of Bath for publication at Graz early in 1927.
26. There is also a fragment of the *Questiones naturales* at Leyden, MS. Voss. Lat. 4° 84, which Sandys (*History of Classical Scholarship*,³ i. 655) mistook for an abridgment of the *Causae* ascribed to Quintilian.

CHAPTER III

- 55, 56. As Professor Thorndike has pointed out (*American Historical Review*, xxx. 346), the text here gives the impression of taking somewhat too literally the rhetorical phrases of Hermann's preface.

CHAPTER IV

- 78, n. 47. On the problem of the two geomancies, see Birkenmajer, in *Philosophisches Jahrbuch*, xxxviii. 282. Munich, Cod. lat. 3216, f. 18, should be added to the list of copies of Hugo.
- 79, notes 49, 50. MS. Lat. 1461 should be 4161, in which we read at f. 71 v 'Hugonis Sazeliensis translatio.'

CHAPTER V

87. The library of the Michelsberg at Bamberg had, between 1112 and 1123, a 'Liber Sarracenus de mathematica' and two Greek books on the same subject: G. Becker, *Catalogi bibliothecarum antiqui* (Bonn, 1885), p. 192, nos. 79, 114, 115.
88. Of course there were other sources of Platonism, such as Apuleius, Augustine, and Boethius.
- 89, line 14. Bernard of Chartres should be mentioned as well as Bernard Silvester; I did not mean to imply their identity. Cf. my paper on "An Italian Master Bernard," in the volume of studies dedicated to Reginald Lane Poole (Oxford, 1927).
- 91, n. 56. I now have a photograph of this MS. on which one of my students is at work.
95. Another such collection in B. N., MS. lat. 7412, ff. 80-89 v (saec. xii), is entitled *Questiones physice* ('Primis mensibus' . . .).
99. The library of Whitby, ca. 1180, had a 'Liber Mamnonis': Becker, *Catalogi*, p. 227, no. 47.
111. Professor Powicke (*E. H. R.*, xl. 422) corrects my date for Simon of Bredon as too early.
n. 163 end. Add MS. Vat. lat. 4075, copied in 1411.

CHAPTER VI

122. J. Ruska, *Arabische Alchimisten*, i (Heidelberg, 1924), has now thrown grave doubt upon the authenticity of the Latin Morienus as well as its ascription to Robert of Chester.

CHAPTER VII

133. For a Graeco-Arabic medical MS. from southern Italy, see below, under p. 184.
134. The Cesena MS., which also has the synonyms, has in the concluding date 1107, 26 January 'feria iiiii.'
135. A treatise *De modo medendi* found in several MSS. is ascribed to Stephen of Antioch by R. Ganszyniec in *Archiv für Geschichte der Medizin*, xiv. 110-113 (1923).
136. Another copy of the *Experimentarius* is at Magdalene College, Cambridge, Pepys MS. 911, according to Sandys, *History of Classical Scholarship*,³ i. 536. On Bernard Silvester, see above, p. 89.
139. Philip was archdeacon of Tripoli in 1267, according to Birkenmajer, *Philosophisches Jahrbuch*, xxxviii. 282.

CHAPTER VIII

148. The Italian journeys of John of Salisbury have now been reduced to six by R. L. Poole, *The Early Correspondence of John of Salisbury* (British Academy, 1924).
- 151 (cf. pp. 181, 233). On Boethius as a source of the mediaeval method of literal translation, see E. K. Rand, in *Jahrbücher für classische Philologie*, Suppl. xxvi. 429 ff. (1901).
- 154, n. 45. See also Heiberg, "Wie die Schriften des Alterthums an uns gelangt sind," in *Scientia*, xxxix. 81-88, 153-162 (1926).

CHAPTER IX

- 170, 188. On learning at the court of Henry II, see my paper in the *Essays Presented to Thomas Frederick Tout* (Manchester, 1925), pp. 71-77.
179. Other MSS. of the Latin version of Proclus are Vat. lat. 11600, ff. 137-139 v (saec. xv); and B.N., MS. lat. 15453, f. 412, a copy which Birkenmajer would date 1243, well before William of Moerbeke (*Philosophisches Jahrbuch*, xxxviii. 282).
184. An eleventh-century Greek medical MS. from southern Italy with Arabic glosses (ff. 113 v-115 v, 116, 118 v) is in B. N., Suppl. grec, MS. 1297. The provenance appears from a Latin note in a Beneventan hand on f. 89.

CHAPTER X

- 195, 197. The fragment of the Latin version of the *libellus* of Chrysolanus I have completed in *Byzantion*, ii. 234-236 (1926), from MS. 233 of Prague and a MS. at the Biblioteca Nazionale Centrale at Florence (Conv. soppr. I. iv. 21).
196. It appears from the new material noted under p. 218 that the visit of Henry of Grado to Constantinople falls ca. 1158. Cf. P. F. Kehr, *Italia pontificia*, vii, 2, p. 64, no. 121.
- 207, n. 57. Delete the reference to the Psalter.
- 208, n. 93. The account of the Latin versions of Galen in Donald Campbell, *Arabian Medicine* (London, 1926), follows Diels closely. According to the Vatican catalogue Burgundio is the author of the translation of the *De iuvamento membrorum* in Ms. Pal. lat. 1099, f. 1, but the MS. is silent on this point.
- n. 94. The version of 1185 is also so dated in the Cesena MS. xxv. 2.
214. On the theological writings of Hugo Eterianus I am sorry to have overlooked the careful study of R. Lechat, in *Mélanges Charles Moeller* (Louvain, 1914), i. 485-507.
216. The *Oneirocriticon* of Achmet has now been edited by Drexel (Leipzig, 1925), who finds Leo's translation useful for the text. There is another MS. of Leo in the Riccardian, MS. 859, ff. 1-51 v (saec. xv).

- 218-221. Two further translations of Paschal the Roman, a *Dialogue with a Jew* of 1158 (1163?) and a life of the Virgin by Epiphanius, I have described in *Byzantion*, ii. 231-234 (1926). There is another undated text of the *Liber thesauri* in MS. Vat. lat. 4436. f. 1; and a sixth MS. of the Latin *Kiraniides* at the Laurentian, MS. Ashburnham 1520 (1443), f. 1 (saec. xiv), with the date 1169.
221. The translation of Albumasar is ascribed to Stephen of Messina in 1262: Steinschneider, *E. U.*, no. 114.
222. The Leipzig dissertation of F. A. Krah (1924) throws doubt on the connection of Zacharias with Constantinople. See *Mitteilungen zur Geschichte der Medizin*, xxiii. 61 (1924).

CHAPTER XI

- 223-241. F. Bliemetzrieder, in *Philosophisches Jahrbuch*, xxxviii. 230-249 (1925), makes an elaborate argument for Burgundio the Pisan as the author of the version of the *Posterior Analytics* preserved at Toledo, but he brings forward no fresh evidence. Burgundio throws no light on the question in the preface of 1173 which lists earlier translations from the Greek (*infra*, p. 232, n. 37), for he omits both *Analytics* from his enumeration of the versions made by Boethius, and says nothing of his own translations or those of James of Venice.
250. For 'Egidio Colonna' read 'Egidio Romano.' Cf. Mandonnet, in *Revue des sciences philosophiques*, iv. 480-490 (1910); and Dyroff, in *Philosophisches Jahrbuch*, xxxviii. 18-25 (1925).

CHAPTER XII

242. On the different estimates of Frederick, see K. Hampe, *Kaiser Friedrich II in der Auffassung der Nachwelt* (Stuttgart, 1925). W. Cohn, *Das Zeitalter der Hohenstaufen in Sizilien* (Breslau, 1925), adds nothing on intellectual matters. For interesting sidelights, see A. Haseloff, *Die Basen der Hohenstaufen in Unteritalien*, i (Leipzig, 1920).
250. On grammar and rhetoric at the University of Naples, see now my paper on "Magister Gualterius Esculanus" in the *Mélanges Ferdinand Lit. Paris*, 1925¹, pp. 245-257.
257. 'Patris domini F. imperatoris,' also in the Laurentian MS. xii. 27, l. 48.
263. Regarding the mission to Norway, Dr. Birkenmajer (*Philosophisches Jahrbuch*, xxxviii. 283) calls attention to earlier passages in Thomas of Cantimpré and Albertus Magnus.
266. Bartholomew of Messina also translated from the Greek for Manfred Hippocrates *De morbis puerorum*: Vatican, MS. Vat. lat. 2382, ff. 95-106 v; Vat. lat. 2417, ff. 257 v-263. Another MS. of the version of Hierodes is also at the Vatican, MS. Reg. lat. 1301.

CHAPTER XIII

- 273, n. 8. Subsequent inspection of the MS. entirely confirms the reading 'MCC etc.'
277. It is suggested by Monsignore G. Mercati (*Miscellanea Ehrle*, v. 121) that the copy of the *De animalibus* and the *Abbreviatio Avicenne* now in the Chigi library at the Vatican (MS. E. 251) may have been copied for Frederick II. For another thirteenth-century version of Arabic abridgments of the *De animalibus*, see Monsignore A. Pelzer's memoir on "Pierre Gallego" in the *Miscellanea Ehrle*, i. 407-456.
279. The version of Averroës's commentary on the *De anima* is explicitly ascribed to Michael Scot in B. N., MS. lat. 14385, ff. 133-160 v.
- 280 f. Of the treatise on alchemy ascribed to Scot I have ready for publication in *Isis* a study based on comparison of the Palermo and Oxford MSS. For Catania on p. 281 we should read Sarzana.
283. The Jew Andrew who helped Scot with his translations is very probably to be identified with a Master Andrew, canon of Palencia, whom in 1225 (when Scot was probably at the Curia) the Pope praises for his knowledge of Arabic, Hebrew, Chaldee, and Latin, as well as the seven liberal arts. See the bull of Honorius III analyzed in Pressutti, *Regesta*, no. 5445, and printed in full in my paper on "Michael Scot in Spain" in the *Homenaje A. Bonilla y San Martín* (Madrid, 1925).
- 283, n. 69. On the scholastic prologues of this type, see Miss Hope Allen, in *Romanic Review*, viii. 434-462 (1917).
- 292, 296. Monsignore Mercati informs me that instead of 'Montepulciano' the text should read 'Bulicame,' near Viterbo. Cf. Dante, *Inferno*, xiv. 79.

CHAPTER XIV

302. On MS. E., see A. Restori, in *Revue des langues romanes*, xxxix. 289-293 (1896).
- 318, n. 122. Dr. Birkenmajer points out that the *Liber de animalibus* is more probably the translation of Aristotle by Theodore Gaza.
319. Cf. below under p. 351.

CHAPTER XV

329. The enigmatical William R appears as 'Ego Guillelmus R' in a computistic fragment posterior to 1072 in B. N., MS. lat. 14069, f. 15 v (saec. xii).

CHAPTER XVI

338. Another early MS. of Nimrod, resembling the Venetian, is B. N., MS. lat. 14754, ff. 203-232 v (saec. xii).
- 342, 345. 'Alexander' has been placed in Syria ca. 800 by Cumont, in *Revue archéologique*, fifth series, iii. 17 f. (1916), a conclusion which supports the date here suggested for Nimrod.

CHAPTER XVII

346. An early treatise on hawks of a certain Grimaldus 'baiuli et comitis sacri palatii ad Karulum regem' is preserved at Poitiers, MS. 184, ff. 70-73.
349. Another MS. of an Italian version at Rome, Biblioteca Vittorio Emanuele, MS. 506, f. 74 (saec. xv).
351. On the translations of Daniel of Cremona, see C. Frati, "Re Enzo e un' antica versione francese di due trattati di falconeria," in *Miscellanea Tassoniana* (Modena, 1908), pp. 61-81.
354. The treatise of Peter de l'Astor is printed from a Bologna codex by A. Restori, *Revue des langues romanes*, xxxix. 294-301 (1896).
355. In the Barberini MS. 12 at the Vatican, ff. 94-95 (saec. xiv), there is a fragment 'De avibus rapacibus marescallia' beginning, 'Ad ancipitris tescgam . . .'

CHAPTER XVIII

- 367, 368. For the use of the *Physics* and *Metaphysics* by David of Dinant, whose writings were condemned at Paris in 1210, see G. Théry, *David de Dinant* (Kain, 1925), pp. 72-83.
- 371, n. 72. For 'saec. xiii' read 'saec. xii exeuntis'; and add 'B. N., MS. lat. 7647 (saec. xiii ineuntis).'
374. On Honcin ben Ishak see *Isis*, vi. 282-292, viii. 685-724.

CONTENTS

THE SCIENCE OF THE ARABS

	PAGE
I. TRANSLATORS FROM THE ARABIC IN SPAIN	3-19
Place of Spain in the history of science	4
Arabic science in Spain	6
x Gerbert	8
x The translators of the twelfth century	9
x The translators of the thirteenth century	16
II. ADELARD OF BATH	20-42
List of writings	20
Biography	33
Adelard's place in intellectual history	35
III. HERMANN OF CARINTHIA	43-66
Life and writings	43
The <i>De essentiis</i>	56
IV. THE TRANSLATIONS OF HUGO SANCTALLENIS	67-81
A hitherto unknown centre of study in Aragon	67
Hugo's versions of works on astrology and divination	72
x V. SOME TWELFTH-CENTURY WRITERS ON ASTRONOMY	82-112
Computists	83
The school of Chartres	88
Treatises on the elements	92
The Marseilles tables	96
A critic of Macrobius	98
Translations of Ptolemy	103
x VI. THE INTRODUCTION OF ARABIC SCIENCE INTO ENG- LAND	113-129
Walcher of Malvern and Petrus Alphonsi	113
Robert of Chester	120
Roger of Hereford	123
Daniel of Morley	126
Alfred of 'Sereshel'	128
VII. TRANSLATORS IN SYRIA DURING THE CRUSADES	130-140
Stephen of Antioch	131
'Bernard Silvester'	135
Philip of Tripoli	137

TRANSLATIONS FROM THE GREEK

× VIII. THE GREEK ELEMENT IN THE RENAISSANCE OF THE TWELFTH CENTURY	141-154
IX. THE SICILIAN TRANSLATORS OF THE TWELFTH CEN- TURY	155-193
Many-tongued Sicily	155
The first version of Ptolemy's <i>Almagest</i>	157
Aristippus	165
Robert of Cricklade	168
Eugene of Palermo	171
Versions of Euclid, Hero, and Proclus.	178
Other possible translations in Sicily.	183
Sicily and the North	185
Preface to the Sicilian <i>Almagest</i>	191
X. NORTH-ITALIAN TRANSLATORS OF THE TWELFTH CENTURY	194-222
Italy and Byzantium in the twelfth century	194
Moses of Bergamo	197
Burgundio the Pisan	206
An emissary of Frederick I ca. 1179	209
Hugo Eterianus and Leo Tuscus	213
Paschal the Roman.	218
Astrology and the occult	221
× XI. VERSIONS OF ARISTOTLE'S POSTERIOR ANALYTICS . .	223-241
The <i>New Logic</i>	223
James of Venice and Boethius	226
The version of the Toledo manuscript	228
Other versions	236

THE COURT OF FREDERICK II

× XII. SCIENCE AT THE COURT OF THE EMPEROR FREDERICK II	242-271
Frederick's background	243
The scientists of Frederick's court	245
His relations with Jews and Mohammedans	251
Principal subjects of interest	254
The emperor as a scientific inquirer.	262
King Manfred	269
× XIII. MICHAEL SCOT	272-298
Fact and legend	272
List of writings	277
Astrological works	285
Questions addressed to Michael by Frederick II	292

XIV. THE <i>DE ARTE VENANDI CUM AVIBUS</i> OF FREDERICK	
II	299-326
Manuscripts and composition	300
The sources	313
Frederick as a student of birds	320

OTHER STUDIES

XV. THE ABACUS AND THE EXCHEQUER	327-335
XVI. NIMROD THE ASTRONOMER	336-345
XVII. SOME EARLY TREATISES ON FALCONRY	346-355
XVIII. A LIST OF TEXT-BOOKS FROM THE CLOSE OF THE TWELFTH CENTURY	356-376
Date and authorship; Garland and Neckam	357
Place in mediaeval learning.	366
Text.	372
INDEX OF MANUSCRIPTS AND LIBRARIES	379-385
SUBJECT INDEX	387-390
INDEX OF PROPER NAMES	391-411

LIST OF ABBREVIATIONS

- B. E. C.** *Bibliothèque de l'Ecole des Chartes*. Paris, 1839- .
B. M. *Bibliotheca Mathematica*. Stockholm, 1884- .
 (Third series unless otherwise noted.)
B. N. Bibliothèque Nationale, Paris.
B. Z. *Byzantinische Zeitschrift*. Leipzig, 1892- .
Beiträge *Beiträge zur Geschichte der Philosophie des Mittelalters*, ed.
 Cl. Baeumker and others. Münster, 1891- .
Bullettino *Bullettino della bibliografia e della storia delle scienze mathe-*
matiche e fisiche, ed. B. Boncompagni. Rome, 1868-87.
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dem Arabischen, in *Sitzungsberichte of the Vienna Academy*,
 phil.-hist. Kl., cxlix, no. 4, cli, no. 1 (1904-05).
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Mittelalters. Berlin, 1803.
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ihre Werke (= *Abhandlungen zur Geschichte der mathema-*
tischen Wissenschaften, x, xiv, 1900, 1902).
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Science. New York, 1922.
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Lateinische, in *Abhandlungen of the Göttingen Academy*,
 xxii (1877).
Z. M. Ph. *Zeitschrift für Mathematik und Physik*. Leipzig, 1856- .

**STUDIES IN THE HISTORY
OF
MEDIAEVAL SCIENCE**

STUDIES IN THE HISTORY OF MEDIAEVAL SCIENCE

CHAPTER I

TRANSLATORS FROM THE ARABIC IN SPAIN¹

THE recovery of ancient science and philosophy in the twelfth and thirteenth centuries marks an epoch in the history of European intelligence. "The introduction of Arabic texts into the studies of the West," says Renan, "divides the history of science and philosophy in the Middle Ages into two perfectly distinct periods. In the first the human mind has, to satisfy its curiosity, only the meagre fragments of the Roman schools heaped together in the compilations of Martianus Capella, Bede, Isidore, and certain technical treatises whose wide circulation saved them from oblivion. In the second period ancient science comes back once more to the West, but this time more fully, in the Arabic commentaries or the original works of Greek science for which the Romans had substituted compends" ² — Hippocrates and Galen, the entire body of Aristotle's writings, the mathematics and astronomy of the Arabs. The full recovery of this ancient learning, supplemented by what the Arabs had gained from the Orient and from their own observation, constitutes the scientific renaissance of the Middle Ages.

¹ Read before the American Philosophical Society, 19 April 1923, but not heretofore published.

² Renan, *Averroës* (Paris, 1869), p. 200. The standard accounts of the translations from the Arabic are: F. Wüstenfeld, "Die Uebersetzungen arabischer Werke in das Lateinische," in *Abhandlungen* of the Göttingen Academy, xxii (1877); M. Steinschneider, *Die hebräischen Uebersetzungen des Mittelalters* (Berlin, 1893); idem, *Die arabischen Uebersetzungen aus dem Griechischen* (Leipzig, 1897) — a factitious collection from *Centralblatt für Bibliothekswesen*, Beihefte v and xii; Virchow's *Archiv*, cxxiv; *Zeitschrift für Mathematik und Physik*, xxxi; and *Zeitschrift der deutschen morgenländischen Gesellschaft*, I; idem, "Die europäischen Übersetzungen aus dem Arabischen," in *Sitzungsberichte* of the Vienna Academy, phil.-hist. Klasse, cxlix, cli (1904-1905). See also his *Introduction to the Arabic Literature of the Jews* (London, 1901); and his many special articles.

The most important channel by which the new learning reached western Europe ran through the Spanish peninsula. "Spain," says W. P. Ker,³ "from the Rock in the South, which is a pillar of Hercules, to the Pass in the North, which is Roncesvalles, is full of the visions of stories." It has its romance of commerce, from the 'corded bales' of the Tyrian trader to the silver fleets of the Indies; of discovery and conquest, as personified in Columbus and the conquistadores; of crusading and knight errantry in the Cid and Don Quixote. It has also its romance of scholarship, of adventure in new paths of learning and even in forbidden bypaths. In consequence of the Saracen conquest, the Peninsula became for the greater portion of the Middle Ages a part of the Mohammedan East, heir to its learning and its science, to its magic and astrology, and the principal means of their introduction into western Europe. When, in the twelfth century, the Latin world began to absorb this oriental lore, the pioneers of the new learning turned chiefly to Spain, where one after another sought the key to knowledge in the mathematics and astronomy, the astrology and medicine and philosophy which were there stored up; and throughout the twelfth and thirteenth centuries Spain remained the land of mystery, of the unknown yet knowable, for inquiring minds beyond the Pyrenees. The great adventure of the European scholar lay in the Peninsula.

Spain, of course, was not the only route by which Arabic science reached the West. Already in the eleventh century Constantine the African was at work in Africa or the East at his more or less trustworthy paraphrases of medical writers, and one of these versions, the *Regalis dispositio* of Ali-ben-Abbas, was subsequently improved and completed by Stephen of Pisa at Antioch.⁴ Adelard of Bath can be followed in Syria more surely than in

³ *Two Essays* (Glasgow, 1918), p. 23.

⁴ *Infra*, Chapter VII. On Constantine, cf. Thorndike, i, c. 32. Constantine's biographer, Petrus Diaconus, tells us (Migne, clxxiii. 1050) that he himself translated the lapidary of 'Evax rex Arabum'; but Petrus is a shaky authority (cf. E. Caspar, *Petrus Diaconus und die Monte Cassinese Fälschungen*, Berlin, 1909), and the problem of the origin of the Latin lapidaries is highly complicated. See Steinschneider, *H.U.*, pp. 956 f. and his references; J. Ruska, *Das Steinbuch des Aris-toteles* (Heidelberg, 1912); Thorndike, i, c. 34; Caspar, pp. 28 f.

Spain.⁵ North Africa was apparently the source of the new arithmetic of Leonard of Pisa.⁶ Some Arabic material, like Achmet's *Dream-book*, came via the Byzantine Empire.⁷ A more important intermediary was Sicily, where the Arabs had ruled from 902 to 1091, and where the Mohammedan population remained a considerable element after the Norman conquest. Here about the middle of the twelfth century Edrisi wrote his great compendium of Arabic geography, and Eugene of Palermo translated the *Optics* of Ptolemy from the Arabic. In the next century the hospitality of Frederick II to Arab learning is well known. Michael Scot's later years were spent at his court, and Jewish translations of Averroës were dedicated to him. While these examples show the influence of Spain, the emperor's relations extended to many other parts of Islam.⁸ On the side of astronomy and astrology translation from the Arabic went on under Frederick's son and successor, Manfred, and still later under Charles of Anjou. Moreover, there is a considerable amount of material from the Arabic of unknown origin, some of which, like the alchemical treatises, was modified and enlarged before it reached its current Latin form, and in all this it is impossible to fix the relative part played by Spain and by other countries. There was also, as we shall see,⁹ a large body of science and philosophy derived directly from the Greek. Nevertheless, the broad fact remains that the Arabs of Spain were the principal source of the new learning for western Europe.

The science of mediaeval Spain was, of course, an importation from the Mohammedan East. It was not specifically Arab, save for the Arab power of absorbing rapidly the older culture of the Byzantine Empire, Egypt, Syria, and the lands beyond. Fundamentally it was chiefly Greek, either by way of direct translation or through the intermediary of Syriac and perhaps Hebrew versions of Aristotle, Ptolemy, Euclid, Hippocrates, and the rest, but developed in many fruitful ways by elements from the farther East and by a certain amount of specific observation and dis-

⁵ *Infra*, Chapter II.

⁶ Cantor, ii, c. 41; S. Günther, *Geschichte der Mathematik* (Leipzig, 1908), i, c. 15.

⁷ *Infra*, Chapter X, n. 137.

⁸ *Infra*, Chapter XII.

⁹ *Infra*, Chapters VIII-XI.

covery under the caliphs. The men of science were from all parts of Islam, few indeed being Arabs, but they shared the speech and culture which gave the several caliphates their common civilization.

The Spanish element in this Saracen culture awaits clearer definition. The current books are likely either to reproduce the highly colored reports of Moorish writers, such as the conventional account of Cordova with its 600 mosques and its library of 600,000 volumes, or to deal with generalities concerning Saracen learning and science which have little that is distinctively Spanish.¹⁰ Spain clearly participated, but what did she contribute? Nothing significant in the way of translation into Arabic from the older literature which was the source of Arabic science,¹¹ for this was to be found only in the East, and reached Spain only in the Arabic versions. Something, undoubtedly, in the discussion and elaboration of this material on Spanish soil. Yet when we examine the lists of Arabic writers on medicine, mathematics, astronomy, and cognate subjects, the number of those who wrote in Spain is not large, and most of these are known to us only from the general phrases of the Arabic cataloguers.¹² The list includes the philoso-

¹⁰ A critical account of the libraries of Mohammedan Spain is lacking. J. Ribera, *Bibliófilos y bibliotecas en la España musulmana* (Saragossa, 1896), is a sketch without references.

¹¹ The only exception I know is the MS. of Dioscorides said to have been brought from Constantinople in the tenth century as a present from the emperor. See Steinschneider's citations, in Virchow's *Archiv*, cxxiv. 482.

¹² F. Wüstenfeld, *Geschichte arabischer Aerzte und Naturforscher* (Göttingen, 1840); L. Leclerc, *Histoire de la médecine arabe* (Paris, 1876); Suter, particularly nos. 84-87, 90-92, 100, 107, 109-111, 128, 134-136, 159-161, 163, 168-170, 176, 179, 182, 188-190, 194-197, 200-202, 208-213, 219-227, 234-247, 249, 252, 255-259, 264 f., 267, 269, 272, 274 f., 277, 279-282, 284-286, 289 f., 294-296, 301-304, 308, 311 f., 315, 321-323, 325-327, 329-332, 334 f., 339, 342, 350, 355, 373, 379, 384, 388, 390 f., 402, 407-410, 420, 444; Brockelmann, *Geschichte der arabischen Literatur* (Weimar, 1898), i; and the *Encyclopaedia of Islam*, passim. The best sketch of Arabic astronomy and astrology is that of Nallino, in Hastings' *Cyclopaedia of Religion and Ethics*, xii, pp. 88-101 (1922). No help can be gained from Spanish works such as Eduardo García del Real, *Historia de la medicina en España* (Madrid, 1921); or Norbert Font y Sagué, *Historia de les ciencias naturals d Catalunya* (Barcelona, 1908). A. Bonilla y San Martín, *Historia de la filosofía española*, i (Madrid, 1911) is useful, as is the brief account, with bibliography, in A. Ballesteros y Beretta, *Historia de España*, ii (Barcelona, 1920). See also J. A. Sánchez Pérez, *Biografías de*

phers Avempace of Saragossa,¹³ Abubacer (ibn Tofail), and Averroës; the astronomers al-Bitrogî and ibn Aflah, who joined them in criticising, apparently on the basis of Greek sources, Ptolemy's theory of planetary motion; their predecessor Maslama, who introduced the astronomy of the East into Spain and adapted the tables of al-Khwarizmi to the meridian of Cordova;¹⁴ and al-Zarkali (Arzachel), observer and designer of instruments, who determined more accurately the angle of the ecliptic, discussed the precession of the equinoxes, and composed the canons which accompanied the standard tables of Toledo.¹⁵ To these should be added some physicians of note, like the family of Avenzoar¹⁶ and the surgeon Abul-Kasim, one or two writers on agriculture, and an occasional geographer like al-Bekri, ibn Jubair, and Benjamin of Tudela. Benjamin suggests the Jewish element, which prospered greatly under the western caliphs and held an important position in the intellectual life of the age. Spain produced Avicenna (ibn Gabirol) and the most eminent among mediaeval Jewish philosophers, Maimonides, who, however, removed early in life to the East; and Spanish Jews coöperated with Moslem scientists so that the share of each cannot easily be distinguished.¹⁷ Among the Moslems the outstanding mind would seem to have been Averroës, yet it has been remarked of him that his influence was far less in Islam than in western Christendom. At the same time, Spain seems to have possessed the principal writers of the Mohammedan East and versions of the Greek works from which they drew, and it was in transmitting to western Europe the fulness of

matemáticos árabes que florecieron en España (Madrid, 1921); and his edition of the *Algebra* of Abenbéder (Madrid, 1916); as well as the sketch of David Eugene Smith, *History of Mathematics* (Boston, 1923), i. 205-211. M. Menéndez y Pelayo, "Inventario bibliográfico de la ciencia española," in his *Ciencia española* (Madrid, 1888), iii. 127-445, is useful mainly for the later period.

¹³ I have not seen the articles of Asin, in the *Revista de Aragón*, 1900-01.

¹⁴ H. Suter, *Die astronomischen Tafeln des Muhammed ibn Musa al-Khwarizmi in der Bearbeitung des Maslama ibn Ahmed al-Madjriti*, published by the Royal Danish Academy, Copenhagen, 1914. See Chapter II, no. 3.

¹⁵ Steinschneider, "Etudes sur Zarkali," in *Bullettino*, xiv, xvi-xviii, xx (1881-87); and, for the astronomers in general, Suter, and Duhem, ii.

¹⁶ G. Colin, *Avenzoar* (Paris, 1911).

¹⁷ See below, n. 57.

eastern learning that the Peninsula seems chiefly to have served the advancement of knowledge.

Down to the twelfth century the share of Christian Spain in the diffusion of Saracen learning seems to have been small; indeed the oldest catalogues of its monastic and cathedral libraries are confined to the Latin tradition of the earlier Middle Ages, and with the exception of one noteworthy manuscript they show no trace of Mohammedan science until far into the twelfth century.¹⁸ Nevertheless, it is important to note that the most learned man of the tenth century, Gerbert of Aurillac, the future Silvester II, certainly visited the county of Barcelona in his youth and studied mathematics there under Atto, bishop of Vich. There is no certain evidence that he penetrated farther into the Peninsula; but later, in 984, we find him sending to Miro Bonusfilius, bishop of Gerona, for the treatise of a certain Joseph the Wise on multiplication and division, and asking Lupitus of Barcelona, likewise unknown to us, for a *liber de astrologia* which Lupitus has translated.¹⁹ This latter work, at least, was obviously translated from

¹⁸ For early Spanish libraries, see in general R. Beer, *Handschriftenschätze Spaniens* (Vienna, 1894); and, for MSS. in the Visigothic hand, the list in C. U. Clark, *Collectanea Hispanica* (Paris, 1920). Further references are in R. Foulché-Delbosc and L. Barrau-Dihigo, *Manuel de l'hispanisant*, i (New York, 1920). The best study of a particular library is that of Beer, "Die Handschriften des Klosters Santa Maria de Ripoll," in Vienna *Sitzungsberichte*, clv, 3, clviii, 2 (1907, 1908). See also Delisle, "MSS. de l'abbaye de Sillos," in his *Mélanges de paléographie*, pp. 53-116 (cf. Férotin, *Histoire de l'abbaye de Sillos*, Paris, 1897); Denifle's catalogue of the Tortosa MSS., *Revue des bibliothèques*, vi, 1-61 (1896); and the scattered notices in Villanueva, *Viage literario*. The uncatalogued MSS. of the provincial library of Tarragona I examined on the spot in 1913.

The only clear example of Arabic influence yet pointed out is MS. Ripoll 225, of the tenth century, to which we shall return below (note 21). Two interesting manuals of technology edited by J. M. Burnam, who suggests their derivation from Ripoll, show no Arabic influence. See his "Recipes from Codex Matritensis Ar6 (ahora 19)," in *University of Cincinnati Studies*, viii, 1 (1912); *A Classical Technology* (Boston, 1920); and cf. *Bulletin Hispanique*, xxii, 229-233 (1920). So a Ripoll MS. of 1056 now in the Vatican (Reg. Lat. 123) contains only the older Latin astronomy. See Pijoán, in *Trabajos of the Escuela española de arqueología é historia en Roma*, i, 1-10 (1912); Saxl, in Heidelberg *Sitzungsberichte*, 1915, no. 5, pp. 45-59.

¹⁹ Richer, *Historiae*, iii, ch. 43; *Lettres de Gerbert*, ed. Havet, nos. 17, 24, 25. Cf. M. M. Büdinger, *Ueber Gerberts wissenschaftliche und politische Stellung* (Marburg, 1851), pp. 7-25; Beer, in Vienna *Sitzungsberichte*, clv, 3, pp. 46-59; Manitius, *Geschichte der lateinischen Litteratur des Mittelalters*, ii, 729-742 (1923). For Joseph the Wise, cf. Suter, no. 182.

the Arabic; it has been conjecturally identified with a treatise on the astrolabe, very possibly with the source of a treatise on this subject which Bubnov ascribed hesitatingly and on no very conclusive grounds to Gerbert himself.²⁰ Whoever the author, he worked from Arabic sources, as is seen by the Arabic terms which he takes over, and it so happens that a fragment of his work which was unknown to Bubnov still exists in a codex of the tenth century among the manuscripts of Santa Maria de Ripoll at Barcelona.²¹ Apart, however, from this doubtful work, it seems now agreed that there is no direct influence of Arabian mathematics visible in Gerbert's writings.²² Throughout the eleventh century Arabic influence is limited to the technical terms of the astrolabe and the names of stars, with the possible addition of the astrology of Alchandrinus.²³

In general, the lure of Spain began to act only in the twelfth century, and the active impulse toward the spread of Arabic learning came from beyond the Pyrenees and from men of diverse origins. The chief names are Adelard of Bath, Plato of Tivoli, Robert of Chester, Hermann of Carinthia, with his pupil Rudolf of Bruges, and Gerard of Cremona, while in Spain itself we have Dominicus Gondisalvi, Hugh of Santalla, and a group of Jewish

²⁰ *Gerberti Opera Mathematica* (Berlin, 1899), pp. 109 ff. The discovery of evidence from the tenth century (see the following note and Thorndike, i, ch. 30) requires a reopening of the question.

²¹ Archives of the Crown of Aragon, MS. Ripoll 225, 105 folios; cf. Beer, *loc. cit.*, pp. 57-59. The MS., which I examined in 1913, is in some confusion and needs to be collated with the several early treatises on the astrolabe (cf. Bubnov, pp. cv-cviii). It begins in the middle of the work ascribed to Gerbert: [super]ponitur tabule . . . (Bubnov, p. 123, l. 5). Then, f. 1 v, 'De mensura astrolabii. Philosophi quorum sagaci studio . . .' F. 7 v, 'De mensura volvelli.' F. 9 v-10, table of stars with Arabic names. F. 24 v, 'Incipit astrolabii sententie. Quicumque vult scire certas horas noctium et dierum . . .' F. 25 v, 'Explicit prologus. Incipit de nominibus laborum laboratorum in ipsa tabula. In primis Almucantarar . . .' F. 30 v, 'Incipiunt capitula orologii regis Ptolomei. Quomodo scias altitudinem solis . . .' F. 35, 'Incipiunt regule de quarta parte astrolabii . . .' F. 39, a new treatise; cf. Beer, p. 59.

²² Bubnov, *Gerberti Opera Mathematica*; Cantor, *Vorlesungen*, i. ch. 39.

²³ Bubnov, pp. 124 ff., 370-375; Thorndike, i, ch. 30. An Arabic-Latin glossary of the eleventh century has been edited by C. F. Seybold (Tübingen, 1900); cf. E. Böhmer, in *Romanische Studien*, i. 221-230 (1871); Götz, *Corpus glossariorum Latinorum*, i. 188 f.

scholars, Petrus Alphonsi, John of Seville, Savasorda, and Abraham ben Ezra. Much in their biography and relations with one another is still obscure. Their work was at first confined to no single place, but translation was carried on at Barcelona, Tarazona, Segovia, Leon, Pamplona, as well as beyond the Pyrenees at Toulouse, Béziers, Narbonne, and Marseilles. Later, however, the chief centre became Toledo. An exact date for this new movement cannot be fixed, now that criticism has removed the year 1116 from an early title of Plato of Tivoli,²⁴ but the astronomical tables of Adelard are dated 1126, and this whole group of translators, save Gerard of Cremona, can be placed within the second quarter of the twelfth century. They owed much to ecclesiastical patronage, especially to Raymond, archbishop of Toledo, and his contemporary Michael, bishop of Tarazona. Besides a large amount of astrology, inevitable in an age which regarded astrology as merely applied astronomy and a study of great practical utility, their attention was given mainly to astronomy and mathematics.

Adelard of Bath, to begin with the earliest of this group, can be connected with Spain by indirect evidence only. He was a translator of mathematical and astronomical works from the Arabic, but, as he speaks specifically of sojourns in Syria and southern Italy, his knowledge of both the learning and the language of the Saracens may well have been gained outside of the Peninsula. Nevertheless the astronomical tables which he turned into Latin in 1126 were, in this form, the work of the Spanish astronomer, Maslama, and based upon the meridian of Cordova, and it is quite unlikely that Adelard found these elsewhere than in Spain. Where his other versions, such as the translation of Euclid's *Elements*, were made, it is impossible to say, but it is clear that he must be viewed in a European rather than a Spanish perspective.²⁵ He is also interesting as the first of a long line of Englishmen who played an important part in this whole movement and whose writings serve as an index of the absorption of the new learning in the North.²⁶

²⁴ See below, n. 29.

²⁵ See Chapter VI.

²⁶ See the following chapter.

Plato of Tivoli, whose biography is known only from his translations,²⁷ was until recently supposed to have made a mathematical translation as early as 1116, his *Liber embadorum* of Savasorda being dated 15 Safar in year 510 of the Hegira.²⁸ I showed, however, in 1911²⁹ that this date did not correspond with the position of the sun and planets as therein described, which requires an emendation of the text to 540 (DXL from which the L has been lost), thus bringing us down to 13 August 1145. The *Liber embadorum*, interesting for the introduction of Arabic trigonometry and mensuration into the West, and for its apparent influence on the geometry of Leonard of Pisa, is hence the latest of Plato's versions. The others, mostly dated at Barcelona between 1134³⁰ and 1138, include the astronomy of al-Battani, which Plato preferred to the longer *Almagest* of Ptolemy,³¹ and a certain number of miscellaneous astrological treatises, among them Ptolemy's own *Quadripartitum* (1138). He had the help of the Jew Savasorda (Abraham ben Chija) and was also in relations with John David, to whom we shall come later.

Hermann of Carinthia and Robert of Chester constitute a sort of literary partnership working at various places in northern Spain and southern France.³² Hermann appears first, translating a work of Arabic astrology in 1138, and by 1141 the two are together in the region of the Ebro, where Peter of Cluny found them and engaged them, along with Master Peter of Toledo and his

²⁷ B. Boncompagni, "Delle versioni fatte da Platone Tiburtino traduttore del secolo duodecimo," in *Atti dell' Accademia Pontificia dei Lincei*, iv. 249-286 (1851); Wüstenfeld, pp. 39-44; Steinschneider, *E. U.*, no. 98; Thorndike, ii. 119.

²⁸ M. Curtze, *Der "Liber embadorum" des Savasorda in der Uebersetzung des Plato von Tivoli (Abhandlungen zur Geschichte der mathematischen Wissenschaften, xii)*, Leipzig, 1902.

²⁹ *Romanic Review*, ii. 2; *E. H. R.*, xxvi. 491. The astronomical facts were verified by my colleague, the late Professor R. W. Willson.

³⁰ To the evidence for the year 1134 as the date of the version of Hali, *De electionibus*, should be added MS. 10063 of the Biblioteca Nacional, f. 32; and MS. 5-5-14 of the Biblioteca Colombina at Seville.

³¹ C. A. Nallino, *Al-Battani sive Albatenii Opus astronomicum*, in *Pubblicazioni del R. Osservatorio di Brera in Milano*, xl (1904). To the Latin MSS. there enumerated (p. li) should be added MS. 5-1-21 of the Biblioteca Colombina, ca. 1200.

³² For a critical study of Hermann and his writings, see Chapter III, below; for Robert, Chapter VI.

own secretary, on a Latin version of the Koran. From the next few years we have a number of works in the name of Hermann or Robert, with frequent dedications by one to the other, which together cover a wide range of mathematical, astronomical, astrological, and philosophical studies. Of outstanding importance among them are Hermann's version of Ptolemy's *Planisphere*, otherwise unknown, and his *De essentiis*, as well as lost mathematical works; and Robert's astronomical tables, his version of the alchemy of Morienus, one of the earliest of such works to reach the West, and his highly significant translation of the *Algebra* of al-Khwarizmi for the Latin world. An astronomical treatise of Hermann's pupil, Rudolf of Bruges, belongs to the same group.

Hugh of Santalla is likewise connected with the north of Spain, of which he was apparently a native.³³ His patron was Michael, bishop of Tarazona in Aragon from 1119 to 1151, and his work was probably done there or in the neighborhood, as we find him mentioning a library at Roda or Rueda. His numerous translations have to do with astrology, geomancy, and various forms of divination, including the *Centiloquium* and several Arabic authors.

While it thus appears that the work of translation was early active at several places in northern Spain, Toledo soon became the most important centre. Reconquered by the Christians in 1085, the seat of the primate and soon the residence of the king of Castile, the historic city on the Tagus was the natural place of exchange for Christian and Saracen learning. "At this ancient centre of scientific teaching were to be found a wealth of Arabic books and a number of masters of the two tongues, and with the help of these Mozarabs and resident Jews there arose a regular school for the translation of Arabic-Latin science which drew from all lands those who thirsted for knowledge, and left the signature of Toledo on many of the most famous versions of Arabic learning."³⁴ Of a formal school the sources tell us very little, but the succession of translators is clear for more than a century, beginning about 1135 and continuing until the time of Alfonso X

³³ See Chapter IV, below.

³⁴ V. Rose, "Ptolemäus und die Schule von Toledo," in *Hermes*, viii. 327 (1874).

(1252-84). The first initiative seems to have been due to Archbishop Raymond, 1125 to 1151,³⁵ as seen in the dedications of the two Toletan translators of this period, Dominicus Gondisalvi, or Gundissalinus, and a converted Jew named John. So far as we can judge from these, the archbishop's interests were chiefly philosophical. Gundissalinus, archdeacon of Segovia, is the author of several translations and adaptations of Arabic and Jewish philosophy: the *Metaphysics* and other works of Avicenna, the *Fons vitae* of Avicbron (ibn Gabirol), the classification of the sciences of al-Farabi, the philosophy of Algazel (al-Gazzali).³⁶ At least at the outset his ignorance of Arabic put him in close dependence on John, who gave him the Spanish word which the archdeacon then turned into Latin,³⁷ so that there is little evidence of direct translation by Gondisalvi.³⁸ John son of David (Avendehut) is an enigmatical personage who still needs investigation. He is usually identified with a John of Spain, of Seville, or of Luna, who meets us between 1135 and 1153 as a voluminous translator and compiler from the Arabic.³⁹ The score of works ascribed to him are

³⁵ B. Gams, *Kirchengeschichte von Spanien*, iii, 1, pp. 20-23, 37; Jaffé-Löwenfeld, *Regesta*, no. 7231.

³⁶ Jourdain, pp. 107-113; Wüstenfeld, pp. 38 f.; Bonilla, *Filosofía española*, i. 316-359; Ueberweg-Baumgartner, *Grundriss der Geschichte der Philosophie*¹⁰ (Berlin, 1915), ii. 405 f., 412, 414-416, 153*; Correns, *Dominicus Gundisalvi de Unitate*, in *Beiträge*, i, no. 1 (1891); Baeumker, *Avencebrolis Fons Vitae*, *ibid.*, i, nos. 2-4 (1892); Bülow, *Des Dominicus Gundissalinus Schrift Von der Unsterblichkeit der Seele*, *ibid.*, ii, no. 3 (1897); Baur, *Gundissalinus De divisione philosophiae*, *ibid.*, iv, nos. 2-3 (1903); Baeumker, *Alfarabi, Ueber den Ursprung der Wissenschaften*, *ibid.*, xix, no. 3 (1916); Furiani, *Des Dominicus Gundissalinus Abhandlung de anima*, *ibid.*, xxiv, nos. 2-4 (in press); Thorndike, ii. 78-82.

³⁷ Preface to version of Avicenna's *De anima* in Jourdain, p. 449; Correns, pp. 32 f.; and Bonilla, i. 447. I have verified the text from MS. Bodley 463, f. 139.

³⁸ Steinschneider, *E. U.*, no. 49.

³⁹ The best list is in Steinschneider, *E. U.*, no. 68. See also Wüstenfeld, pp. 25-38; Bonilla, i. 319-323; *B. M.*, vi. 114 (1905), ix. 2; Thorndike, ii. 73-78, including his appendix on "Some Mediaeval Johns," pp. 94-98. Thorndike calls attention to a brief tract at St. John's College, Oxford, MS. 188, f. 99 v, which has the following reference: 'Scire oportet vos, karissimi lectores, quod debetis aliquos annos scire super quod cursus planetarum valeatis ordinare vel per quos possitis ordinatos cursus in libro quem ego Johannis Yspalensis interpres existens rogatu et ope duorum Angligenarum, Gauconis scilicet et Willelmi, de arabico in latinum transtuli.' In MS. 10053 of the Biblioteca Nacional, which contains several of John's treatises, we have however (f. 86 v): 'Scire debes, karissime lector, quia oportebit te aliquos annos

chiefly astrological—Albumasar, Omar, Thebit, Messahala, Hali, as well as the *Centiloquium* attributed to Ptolemy—in the forms which became widely current in western Europe; but to these should be added the astronomical manual of al-Fargani,⁴⁰ an interesting treatise of al-Khwarizmi on arithmetic, and a popular version of the medical portion of the *Secretum secretorum*.⁴¹ He was also in relations with the translators who worked outside of Toledo, for translations are dedicated to him by Plato of Tivoli and Rudolf of Bruges.⁴²

The latter half of the twelfth century saw the most industrious and prolific of all these translators from the Arabic, Gerard of Cremona.⁴³ Fortunately we have a brief biographical note and list of his works, drawn up by his pupils in imitation of the catalogue of Galen's writings and affixed to Gerard's version of Galen's *Tegni*, lest the translator's light be hidden under a bushel and others receive credit for work which he left anonymous. From this we learn that, a scholar from his youth and master of the content of Latin learning, he was drawn to Toledo by love of

scire super quos cursus planetarum valeas ordinare vel per quos possis ordinatos cursus in libro quem ego Johannes Ispanus interpres existens de arabico in latinum transtuli.'

⁴⁰ Nallino, *Al-Battani*, p. lvii, dates the version of al-Fargani 11 March 1135, and the *Centiloquium* 17 March 1136.

⁴¹ With a dedication to 'T., queen of Spain.' See Foerster, *De Aristotelis quae feruntur Secretis secretorum* (Kiel, 1888); R. Steele's edition of Roger Bacon's *Secretum secretorum*, pp. xvi-xviii; Thorndike, ii. 269 f.

⁴² Steinschneider, *E. U.*, nos. 98 i, 104 b.

⁴³ The standard monograph is Boncompagni, "Della vita e delle opere di Gerardo cremonese," in *Atti dell' Accademia pontificia dei Lincei*, iv. 387-493 (1851). The contemporary list of his translations here first edited will also be found in Wüstenfeld, p. 57; it is edited with special reference to the medical works by Sudhoff, in *Archiv für die Geschichte der Medizin*, viii. 73-82 (1914). Cf. Thorndike, ii. 87 ff.; *B. M.*, vi. 239-248 (1905). The best critical list of his translations is in Steinschneider, *E. U.*, no. 46. I have noted the following further manuscripts (numbers of Gerard's treatises as in Steinschneider): 10 (34) St. Mark's, vi. 37, "secundum translationem Gerardi"; 21 (45), Madrid, 1407, f. 69 v; 22 (46), Biblioteca Colombina 5-5-21; 33 (27), Vatican, Vat. lat. 3096, dated Toledo 1140 or 1143 (?); 39 (5), Madrid, 10010, f. 1 v-13; 42 (24), Madrid, 10006; 44 (11), Madrid, 10010, f. 69; 46 (62), Madrid, 1193, Escorial i. f. 8; 57 (18), Colombina 7-6-2, f. 141 v; 74 (20), Madrid 10010, ff. 84 v-86 v; 75 (28), Escorial, ii. O. 10. f. 84 v; 76 (29), Madrid, 10053, f. 1 (fragment); 84(68), University of Bologna, Lat. 449 (760), inc. 'Si quis partem,' and in an Italian version at Florence, Biblioteca Nazionale, II. x. 372.

Ptolemy's *Almagest*, which he could not find among the Latins. There he discovered a multitude of Arabic books in every field, and, pitying the poverty of the Latins, learned Arabic in order to translate them. His version of the *Almagest* bears the date of 1175.⁴⁴ Before his death, which came at Toledo in 1187 at the age of seventy-three, he had turned into Latin the seventy-one Arabic works of this catalogue, beside perhaps a score of others. Three of these are logical, the *Posterior Analytics* of Aristotle⁴⁵ with the commentaries of Themistius and al-Farabi; several are mathematical, including Euclid's *Elements*, the *Spherics* of Theodosius, a tract of Archimedes, and various treatises on geometry, algebra, and optics. The catalogue of works on astronomy and astrology is considerable, as is also the list of the scientific writings of Aristotle, but the longest list of all is medical, Galen and Hippocrates and the rest, who were chiefly known in these versions throughout the later Middle Ages.⁴⁶ Indeed, more of Arabic science in general passed into western Europe at the hands of Gerard of Cremona than in any other way. Where Gerard's versions have been tested, they have been found closely literal and reasonably accurate; but we are told that he had the assistance of a Mozarab named Galippus, so that we cannot say how far the versions were his own. Both Gerard and Galippus lectured on astronomy in the hearing of Daniel of Morley, an Englishman who had left Paris in disgust to hear the wiser philosophers of the world at Toledo; whence he returned home with a store of precious manuscripts.⁴⁷

After Gerard of Cremona, Roger Bacon lists Alfred the Englishman, Michael Scot, and Hermann the German as the principal translators from the Arabic,⁴⁸ all of whom worked in Spain in the earlier thirteenth century. Alfred was a philosopher, concerned especially with expounding the natural philosophy of Aristotle, although he was also known for his version of two pseudo-Aris-

⁴⁴ *Infra*, Chapter V, n. 139.

⁴⁵ *Infra*, Chapter XI.

⁴⁶ The medical translations of Mark, canon of Toledo, belong apparently to the same period. See Rose, in *Hermes*, viii. 338, who gives one of his prefaces; and Steinschneider, *E. U.*, no. 81; Diels, in Berlin *Abhandlungen*, 1905, pp. 86 f. Alfonso of Toledo, translator of a tract of Averroës (Steinschneider, *E. U.*, no. 12) has not been dated.

⁴⁷ *Infra*, Chapter VI, n. 39.

⁴⁸ *Opus Ieritium*, ed. Brewer, p. 91.

totelian treatises.⁴⁹ Michael Scot first appears at Toledo in 1217 as the translator of al-Bitrogi *On the Sphere*, and by 1220 he had made the standard Latin version of Aristotle *On Animals*, not to mention his share in the transmission of the commentaries of Averroës on Aristotle and his own important works on astrology.⁵⁰ Hermann the German, toward the middle of the century, was likewise concerned with Aristotle and Averroës, particularly the *Ethics*, *Poetics*, and *Rhetoric* and the commentaries thereon.⁵¹ Lesser writers of the same period concerned themselves with astrology and medicine.⁵²

The thirteenth century is an age of royal patrons of learning,⁵³ and it is fitting that the culmination of the Christian science of Spain should come in the reign of Alfonso the Wise, king of Castile from 1252 to 1284. This is no place to discuss the many-sided intellectual activity of this prince, a glory of which Spanish historians are justly proud.⁵⁴ On the side of science he shone in astronomy and astrology, as seen in the Alfonsine tables, in a collection of treatises on astronomical instruments, and in a group of works on astrology. These were not original, save for a certain amount of specific observation, but were based on well known Arabic works, some of them already translated into Latin in the

⁴⁹ *Infra*, Chapter VI, n. 47.

⁵⁰ *Infra*, Chapter XIII.

⁵¹ The versions are dated 1240-44, one perhaps in 1256: Jourdain, pp. 135 ff.; Steinschneider, *E. U.*, no. 51; Luquet, in *Revue de l'histoire des religions*, xlv. 407-422 (1901); C. Marchesi, *L'etica Nicomachea nella tradizione latina medievale* (Messina, 1904); Bonilla, *Filosofía española*, i. 368-371; Grabmann, *Aristotelesuebersetzungen* (*Beiträge*, xvii, no. 5), especially pp. 208 ff.; A. Pelzer, in *Revue néoscholastique*, xxiii. 323 ff. (1921). Hermann's *Summa Alexandrinorum* is also at Seville, MS. Colombina 7-4-22.

⁵² E. g., Salio (Steinschneider, *E. U.*, no. 107; Thorndike, ii. 221); and Stephen of Saragossa (*E. U.*, no. 113). Rufinus of Alessandria (*ibid.*, no. 105; Rose, in *Hermes*, viii. 337) belongs to this period and not to 1168 if his master in Arabic was a Dominican; indeed his ophthalmological version is specifically dated at Murcia in 1271 in MS. Bern 216, f. 42 v.

⁵³ Cf. what is said of Frederick II in Chapter XII, *infra*.

⁵⁴ On Alfonso's astronomical work, see A. Wegener, "Die astronomischen Werke Alfons X," in *B. M.*, vi. 129-185 (1905); Dreyer, in *Monthly Notices of the Royal Astronomical Society*, lxxx. 243-267 (1920); on his translators, Steinschneider, *E. U.*, nos. 4, 9, 40, 55, 60, 61, 69, 87, 93, 97, 108; on his influence, Duhem, ii. 259-266, and *passim*. For the reign in general, see the forthcoming book of A. Ballesteros y Beretta; and cf. his *Sevilla en el siglo XIII* (Madrid, 1913), ch. 11. Wegener dates the *Instruments* 1256 ff.; the *Tables* ca. 1270; the astrological collection 1276-79.

preceding century. These were, however, elaborated, reconciled, systematized, regrouped, and often rewritten at Alfonso's command. The account of an astronomical congress at his court has been shown to be a legend, as was probably also his so-called astronomical college. He had the aid of two Jewish scholars, Isaac ibn Sid and Jehuda ben Moses Cohen, as well as of certain Christian translators like Egidio of Parma. Of the results of their labor the Alfonsine *Tables* are the most famous, although the current texts do not represent their original form of ca. 1270. Seventy-five mediaeval manuscripts and thirteen early editions are known. The *Libros de saber*, describing the various instruments of astronomy, on the other hand, seem to have lain neglected until the Castilian text was printed in five volumes by the Spanish Academy in 1863 and following years.⁵⁶ The unpublished astrological collection has still to be specially studied, as also the magical book of the enigmatical Picatrix which is assigned to this reign.⁵⁶

Jews, both orthodox and converted, play a large part in the work of translation in Spain and southern France.⁵⁷ Sometimes

⁵⁶ *Libros del saber de astronomía del Rey D. Alfonso X de Castilla*, ed. Manuel Rico y Sinobas, Madrid, 1863-67. On the MSS., cf. Tallgren, in *Neuphilologische Mitteilungen*, 1908, p. 110.

⁵⁶ On Picatrix, see Thorndike, ii, ch. 66; H. Ritter, in *Bibliothek Warburg* (Leipzig, 1923), pp. 94-124. See also the *Lapidario del Rey D. Alfonso X*, ed. J. F. Montana in facsimile (Madrid, 1881); and cf. Steinschneider, in *Zeitschrift der deutschen morgenländischen Gesellschaft*, xlix. 266-270 (1895); F. Boll, *Sphæra* (Leipzig, 1903), pp. 430-434.

⁵⁷ See, in general, J. Amador de los Ríos, *Historia de los Judíos de España* (Madrid, 1875-76), i. cc. 3, 5, 7; and the check-list of Spanish-Jewish writers, with references and bibliography, in Joseph Jacobs, *An Inquiry into the Sources of the History of the Jews in Spain* (New York, 1894); Graetz, *Geschichte der Juden*, v, vi; Steinschneider, *H. U.*, passim; "The Arabic Literature of the Jews," in *Jewish Quarterly Review*, ix-xiii, and separately (London, 1901); and for mathematics the Spanish section of his articles on "Die Mathematik bei den Juden," in *B. M.*, 2, ix. 47-50, 97-104, x. 33-42, 77-83, 109-114, xi. 13-18 (1895-97). Steinschneider also has special articles on Savasorda and Abraham ibn Ezra in *Z. M. Ph.*, xii. 1-44 (1867), and in *Abhandlungen zur Geschichte der Mathematik*, iii. 57-128 (1880). On the diffusion of Abraham ibn Ezra among the Latins, see A. Birkenmajer, *Biblioteka Ryszarda de Fournival* (Cracow, 1922), pp. 35-42, 50 f.; D. E. Smith and J. Ginsburg, "Rabbi ben Ezra and the Hindu-Arabic Problem," in *American Mathematical Monthly*, xxv. 99-108 (1918). On the methods of these translators, see Renan, *Averroès*, pp. 202-204; Nallino, *al-Battani*, pp. xxx f.; and for John of Seville, see also Dyroff, in Boll, *Sphæra*, p. 484; for Gerard of Cremona, O. Bardenheuer, *Die pseudo-aristotelische Schrift Ueber das reine Gute* (Freiburg, 1882), pp. 148 f., 192 ff.

they are themselves the authors or translators, as in the case of Petrus Alphonsi, John of Seville, Abraham ibn Ezra, and the astronomers of Alfonso X just mentioned. Sometimes they act as interpreters for Christian translators who receive the chief credit, as, for example, Savasorda for Plato of Tivoli and a certain Andrew or Abuteus for Michael Scot. Apparently such interpreting frequently took the form of translating from Arabic into the current Spanish idiom, which the Christian translator then turned into Latin. This fact helps to explain the inaccuracies of many of the versions, although in general they are slavishly literal, even to carrying over the Arabic article. We must also bear in mind that there was a large amount of translation from Arabic into Hebrew and then later into Latin, as any one can verify by turning to Steinschneider's great volume on Hebrew translations.

In this process of translation and transmission accident and convenience played a large part. No general survey of the material was made, and the early translators groped somewhat blindly in the mass of works suddenly disclosed to them. Brief works were often taken first because they were brief and the fundamental treatises were long and difficult; commentators were often preferred to the subject of the commentary. Moreover, the translators worked in different places, so that they might easily duplicate one another's work, and the earliest or most accurate version was not always the most popular. Much was translated to which the modern world is indifferent, something was lost which we should willingly recover, yet the sum total is highly significant. From Spain came the *Metaphysics* and natural science of Aristotle and his Arabic commentators in the form which was to transform European thought in the thirteenth century. The Spanish translators made most of the current versions of Galen and Hippocrates and of the Arab physicians like Avicenna. Out of Spain came the new Euclid, the new algebra, and treatises on perspective and optics. Spain was the home of astronomical tables and astronomical observation from the days of Maslama and Zarkali to those of Alfonso the Wise, and the meridian of Toledo was long the standard of computation for the West, while we must also note the current compends of astronomy, like al-Fargani, as well as the

generally received version of Ptolemy's *Almagest*, for the love of which Gerard of Cremona made the long journey to Toledo. The great body of eastern astrology came through Spain, as did something of eastern alchemy.

By the close of the thirteenth century Arabic science had been transmitted to western Europe and absorbed, and Spain's work as an intermediary was done. Meanwhile the Peninsula had gained a European reputation as the centre of the black art, and the familiar associations of Toledo, Cordova, Seville, and Salamanca were now with demons and necromancers.⁵⁸ Spain became the scene of visions and prophecies, of mystifications like Virgil of Cordova, of legends like the university of demonology at Toledo connected with the magic cave of Hercules. Association with Spain was enough to condemn even a learned Pope like Gerbert to the role of a magician who had sold his soul to the devil, and to make of poor Michael Scot

A wizard, of such dreaded fame,
That when, in Salamanca's cave,
Him listed his magic wand to wave,
The bells would ring in Notre-Dame!

In the mediaeval mind the science of magic lay close to the magic of science.

⁵⁸ On Spain as the home of magic see particularly Rose, in *Hermes*, viii. 343 f.; H. Grauert, "Meister Johann von Toledo," in Munich *Sitzungsberichte*, phil.-hist. Classe, 1901, pp. 111-325; J. Wood Brown, *Michael Scot*, chs. 9, 10; F. Picavet, *Gerbert*, ch. 6; Thorndike, *passim*; S. M. Waxman, "Chapters on Magic in Spanish Literature," in *Revue hispanique*, xxxviii. 325-463 (1916).

CHAPTER II

ADELARD OF BATH

ADELARD of Bath, the pioneer student of Arabic science and philosophy in the twelfth century, and "the greatest name in English science before Robert Grossetete and Roger Bacon,"¹ still remains in many ways a dim and shadowy figure in the history of European learning. The older writers upon literary history give lists of works attributed to him, but they tell us nothing of his life beyond the fact that he lived under Henry I and travelled in various distant lands;² and while more recent studies have made clearer his place in the history of mediaeval philosophy,³ his work as a whole has yet to be examined, and many fundamental facts in his biography still elude us.⁴ Except for a bare mention in the Pipe Roll of 1130 Adelard is known only from his own writings, which consist in part of translations and in part of independent treatises, and a list of these is the necessary point of departure for any further study.

1. *De eodem et diverso*. Edited, with commentary, from the unique MS., B. N., Lat. 2389, by Willner, in *Beiträge*, iv, no. 1.⁵ Besides the evidence of the dedicatory letter and the title, Adelard's authorship is established by the following passage in his *Astrolabe*:

¹ Wright, *Biographia Britannica literaria* (London, 1846), ii. 94.

² Tanner, *Bibliotheca Britannico-Hibernica* (London, 1748), p. 55, reproduces Leland's account, with notes drawn from Bale, Pits, Oudin, and his own reading.

³ Jourdain, pp. 97-99, 258-277, 452 ff.; Hauréau, *Histoire de la philosophie scolastique*, i. 348-361; Willner, *Des Adelard von Bath Traktat De eodem et diverso*, in *Beiträge*, iv, no. 1 (Münster, 1903); De Wulf, *Histoire de la philosophie médiévale* (Louvain, 1912), pp. 217-219; Ueberweg-Baumgartner, *Grundriss*¹⁰ (Berlin, 1915), ii. 310-317.

⁴ The best of the earlier accounts is that of Wright (ii. 94-101), supplemented by Boncompagni in *Bullettino*, xiv. 1-90 (1881). I took up the problem first in 1911, with results here revised and supplemented (*E. H. R.*, xxvi. 491-498; xxviii. 515 f.; xxxvii. 398 f.). Thorndike has a good but by no means a final chapter (ii, ch. 36). The notice in the *Dictionary of National Biography* is superficial; that of Dom Berlière in Baudrillart's *Dictionnaire*, i. 522 f., is useful.

⁵ Extracts in Jourdain, pp. 260-273, 452-454.

Sunt et alię metiendi corpora demonstrationes, sed quoniam in eo libro quem de eodem et diverso scripsimus dictę sunt magisque geometricę quam astrolabice dici possunt, eas preterimus.⁶

The *De eodem*, of which the scene is laid near Tours while the author is still *iuvenis*, is one of Adelard's earliest works. He has already travelled widely and feels called to explain his wandering life to his nephew; but there is no intimation that he has gone farther than southern Italy and Sicily,⁷ and he shows the influence of Greek rather than of Arabic learning. There are a few Greek but no Arabic words. More definite evidence respecting the date is afforded by the dedication to William, bishop of Syracuse, who is last found in 1115 and whose successor is in office in the following year.⁸ The date of his accession is more difficult to determine, in the scarcity of Syracusan documents from this period: he is first mentioned as bishop at the Lateran Council of March, 1112,⁹ but as he there represented the whole body of Sicilian prelates, he had doubtless been in office for some time, perhaps since 1104, when Pirro places the death of his predecessor. Furthermore, Adelard speaks of having played the *cithara* before the queen in the course of his musical studies in France the preceding year,¹⁰ and as there was no queen of France between the death of Philip I in 1108 and the marriage of Louis VI in 1115,¹¹ the treatise, unless the bishop of Syracuse was still alive in 1116, would not be later than 1109. It is possible, but not probable,

⁶ McClean MS. 165, f. 84; Arundel MS. 377, f. 70. The demonstrations will be found on pp. 29-31 of the edition of the *De eodem*.

⁷ P. 33: 'Et ego certe, cum a Salerno veniens in Grecia maiore quendam philosophum grecum, qui pre ceteris artem medicine naturasque rerum disserebat, sententis pretemptarem.' Cf. p. 32: 'Quod enim gallica studia nesciunt, transalpina reserabunt; quod apud Latinos non addisces, Grecia facunda docebit.' There is nothing here to justify the usual interpretation (Jourdain, p. 97; Wright, p. 95) that Adelard visited Greece. Much for his purposes was to be found in souther. Italy and Sicily; see Chapter IX, below.

⁸ Pirro, *Sicilia sacra* (1733), i. 620, ii. 799; Garufi, *I documenti inediti dell' epoca normanna*, pp. 10, 14; Caspar, *Roger II*, pp. 488, 491, nos. 25, 33; Chalandon, *Histoire de la domination normande*, i. 364.

⁹ 'Wilihelmus Siracusanus legatus pro omnibus Siculis': *Constitutiones et Acta Publica* (M. G. H.), i. 572.

¹⁰ P. 25: 'Cum preterito anno in eadem musica gallicis studiis totus sudares [Philosophy is addressing Adelard] adessetque in serotino tempore magister artis una cum discipulis, cum eorum regineque rogatu citharam tangeres.'

¹¹ It is possible, but not likely, that the title may have been here given to Bertrada after Philip's death; nor, between 1108 and 1115, could either of Philip's daughters have been meant.

that the reference is to the queen of England,¹² but Matilda is not found on the French side of the Channel after 1109.¹³

2. *Regule abaci*, dedicated 'H. suo.' Edited by Boncompagni in *Bullettino*, xiv. 1-134. This evidently belongs to the earlier part of Adelard's life, for its authorities are Boethius and Gerbert,¹⁴ and it shows no trace of Arabic influence.

3. *Ezich Elkauresmi per Athelardum bathoniensem ex arabico sumptus*, a translation of the important astronomical tables of Mohammed ben Musa al-Khwarizmi, as revised by Maslama at Cordova.¹⁵ Bodleian, MS. Auct. F. 1. 9 (Bernard, no. 4137), ff. 99 v-159 v, a fine manuscript of the twelfth century; Chartres, MS. 214, ff. 41-102, likewise of the twelfth century; Bibliothèque Mazarine, MS. 3642, ff. 82-87, incomplete; Madrid, Biblioteca Nacional, MS. 10016, f. 8, as revised by Robert of Chester;¹⁶ Oxford, Corpus Christi College, MS. 283, ff. 113-144, incomplete, with tables as far as p. 167 in Suter's edition, mixed in with some material of Petrus Alphonsi.¹⁷ Trigonometrical portions were edited by A. A. Björnbo from the first two MSS. in the *Festschrift til H. G. Zeuthen* (Copenhagen, 1909), pp. 1-17; the whole is published, with commentary, from Björnbo's papers with the use of the first four MSS., by H. Suter, *Die astronomischen Tafeln des Muhammed ibn Mūsā al-Khwārizmī in der Bearbeitung des Maslama ibn Ahmed al-Madjrīti und der latein. Uebersetzung des Athelhard von Bath*, in the *Selsk. Skrifter* of the Copenhagen Academy, 1914. In the Corpus

¹² This is Thorndike's theory (ii. 44 f.); the suggestion was made to me by R. L. Poole in a letter of 1910, coupled with the possibility that the 'Gallica studia' were not necessarily in France (see, however, the usage in notes 7 and 37), but I have not been convinced by it, nor would it apparently affect the date.

¹³ Haskins, *Norman Institutions*, p. 310; W. Farrer, *Itinerary of King Henry I* (1919)

¹⁴ See, however, Bubnov, *Opera Gerberli*, p. 215 n.

¹⁵ The Mazarine MS. has 'Liber ezich iafaris elkauresmy,' which led Wüstenfeld (p. 21) to ascribe the tables to abu Ma'ashar Ja'afar. See, however, Steinschneider, *H. U.*, pp. 568-570; Nallino, "Al-Huwarizmi," in *Atti dei Lincei*, fifth series, ii. 11. That Maslama's edition was used by Adelard is seen from the mention of Cordova in the tables and the use of the era of the Hegira in place of that of Yezdegerd. The mention of the Spanish era is also noteworthy. The treatise begins: 'Liber iste septem planetarum atque draconis statum continet. . .'

¹⁶ Or. this MS., which I discovered in 1909 and studied in 1913, see *infra*, Chapter VI, n. 32.

¹⁷ This MS., of the twelfth century, unknown to Björnbo and Suter, I found in 1914 but have studied only from photographs. See *infra*, Chapter VI, n. 11. The Latin months are used in the tables, which differ in some other respects from those in Suter.

MS. (f. 142 v) Petrus Anfulsus calls himself 'translator huius libri,' but his description (ff. 142 v-144) follows Adelard's and relates only to the concordance of calendars (ff. 113-114), so that we may have merely the confusion of two treatises by a copyist. In these calendars, one of which coincides with that in the *Liber ysagogarum* (no. 4 below), the basal year is 1115. Adelard formally asserts his own authorship in his *Astrolabe*:

Qualis autem sit examinatio certa in eo libro qui ezic intitulatur quem ex arabico in latinum convertimus sermonem reperies.¹⁸

The date of Adelard's introduction appears as 1126 in the Bodleian MS.:¹⁹

Anno ab incarnatione domini .M^oC^oXX^oVI^o. die ianuarii .xx^{vi}. prima fuit dies Almuhararran et feria tertia, annus autem arabicus .D^mXX.

In the Corpus MS.²⁰ this is followed by a concordance for the eclipse of 2 August 1133:

Anno ab incarnatione Domini .M.C.XXVI. die ianuarii xx^{vi}* prima fuit dies Almuhararran et feria tertia ali, annus arabicus .DX. planus .X. Anno igitur ab incarnatione Domini .M^o.C^o. XXXIII^o. eclipsis solis ii^o die augusti mensis feria .iiii^a. ciclo .xix. x^oiii^o. luna vigesima vii^a. .ii. kal. novembris primus dies Elmuhararran feria .iii^a., annus arabicus adiunctus .DX. XVIII. planus. In anno sequenti .xii. kal. novembris .i^a. feria.

¹⁸ McClean MS. 165, f. 83 v; Arundel MS. 377, f. 69. So f. 84 v, differing slightly from the Arundel text, which has, f. 70 v: 'Adhuc de umbris habeo que dicerem, sed quoniam in ezic [ed. Suter, pp. 21 f.] sufficienter diserta sunt labellum comprimam.' See also Arundel MS., ff. 71, 72 v.

¹⁹ F. 159; Suter, pp. 5, 37, where the suggestion of 26 January as the date of composition is too precise, since this day (= 1 Almuhararran) is given merely as a convenient starting point for reckoning. In the present form of the Bodleian MS., f. 159 follows the explicit on f. 152 v, but close examination shows that it was misplaced and in binding inserted at the end, whereas the text proves that it belongs after f. 99. The reference to the year 1126 is omitted in the Chartres and Mazarine MSS., which, however, announce in the second chapter a table 'per quam ab eo anno quo hic liber in nostrum sermonem translatus est usque in tempora infinita ex annis quotlibet romanis et mensibus cum diebus annorum et mensium et dierum arabicorum equalitas sumi queat.' The astronomical tables generally run to A. H. 570, but several of those in Corpus MS. (e. g., f. 121 = Suter, p. 128) stop in the original hand at A. H. 510 (= A.D. 1116), showing that they are not later than 1116-45.

²⁰ F. 141. Cf. the similar concordance for 1138 in the chronicle of John of Worcester (ed. Weaver, p. 53), who shows his acquaintance in this year with Adelard's version of the tables from the *Ezic* of 'Elkauresmus.' On the use of the Persian word *zig* for astronomical tables, see Nallino, *al-Battani*, p. xxxi; Suter, p. 32.

4 (?). *Liber ysagogarum Alchorismi in artem astronomicam a magistro A. compositus*. Bibliothèque Nationale, MS. Lat. 16208, ff. 67-71 (saec. xii); Milan, Ambrosian Library, MS. A. 3 sup., ff. 1-20 (saec. xii); Munich, Staatsbibliothek, Cod. Lat. 13021, ff. 27-68 v, Cod. Lat. 18927, ff. 31 ff.; Vienna, Nationalbibliothek, MS. 275, f. 27 (fragment).²¹ This consists of an introduction, in five books, explaining the principles of arithmetic, geometry, music, and astronomy, hence in the Ambrosian MS. it is entitled *Liber ysagogarum Alchoarismi ad totum quadrivium*. The first three books of the introduction, which are interesting for the history of arithmetic, have been published by M. Curtze, in *Abhandlungen zur Geschichte der Mathematik*, viii. 1-27; the fifth shows plainly acquaintance with Hebrew chronology as well as with Arabic astronomy. As one of the Munich MSS. is of the middle of the twelfth century and the table of eras in book v is of the year 1115, this work belongs to Adelard's generation, and he is the only man bearing his initial who is known to have been at that time occupied with such translations. Moreover this same table of eras for 1115 recurs with a set of Adelard's Khorasmian tables in MS. 283 of Corpus Christi College, Oxford, f. 113, where at least part of the treatise claims Petrus Alphonsi as its author.²² If Adelard is the author, Tannery²³ has suggested that the small knowledge of geometry shown in the introduction points to the period in his life when, although already familiar with al-Khwarizmi, he had not yet mastered the Arabic text of Euclid.²⁴

5. The translation of Euclid's *Elements*. Numerous manuscripts,²⁵ showing considerable differences in text and arrangement. The preface (Bodleian, Digby MS. 174, f. 99), which contains an occasional Arabic word, treats chiefly of the place of geometry among the sciences and of its method and units of reckoning, and has little general interest. In

²¹ This page, with its early forms of Arabic numerals, is published in facsimile by Nagl, *Zeitschrift für Mathematik und Physik*, xxxiv, sup., p. 129.

²² *Infra*, Chapter VI, n. 11.

²³ *B. M.*, v. 416 (= *Mémoires scientifiques*, v. 344). The inclusion of the era of Spain (1153 = 1115) in the table points to the Spanish derivation of the treatise.

²⁴ There follows in the Munich MS. an astronomical treatise which Curtze connected with this introduction but which turns out to be the version of Zarkali by Gerard of Cremona (Steinschneider, in *Bullettino*, xx. 5 ff.) It begins and ends: 'Quoniam cuiusque actionis quantitatem temporis spacium metitur, celestium motuum doctrinam querentibus eius primum ratio occurrit investiganda. . . . Divide quoque arcum diei per 12 et quod fuerit erunt partes horarum eius, si Deus inveniri consenserit.'

²⁵ Several are indicated in *Bullettino*, xiv. 83.

working from the Arabic Adelard would seem to have made some use of an earlier version from the Greek, but his relations to this and to later versions require investigation, nor is it clear, pending a comparison of the manuscripts, whether in its original form his own work was an abridgment, a close translation, or a commentary.²⁶ It is, however, important to note what he himself says in the *Astrolabe*:²⁷

Et omnium quidem supradictorum simpliciter expositorum siquis rationem postulaverit, intelligat eam apud Euclidem a quindecim libris artis geometricæ quos ex arabico in latinum convertimus sermonem esse coniciendam.

Accordingly, whatever the manuscripts may show, Adelard translated the fifteen books in some form from the Arabic. Did he also write a commentary? The word is used loosely in mediaeval catalogues²⁸ and does not necessarily mean a commentary in our sense. Roger Bacon, however, cites on axioms a passage from the *Editio specialis super Elementa Euclidis* of 'Alardus Batoniensis,'²⁹ a work which Professor David Eugene Smith informs me he has not found mentioned elsewhere. The author can hardly be other than Adelard, although another writer of this name is indicated by the occurrence in a MS. of Corpus Christi College, Oxford, of a fragment of Jordanus *De ponderibus*, composed in the early thirteenth century, with marginal figures in the name of 'Alardus.'³⁰ Adelard of Bath was known as Alardus (e. g., Dresden, MS. Db. 87; Clare College, MS. 15, f. 185) or Aelardus (MS. lat. 18081, f. 196), as well as Adelardus or Athelardus, the last being doubtless the original form.³¹

²⁶ Weissenborn, in *Z. M. Ph.*, xxv, sup., pp. 141-166; Heiberg, *ibid.*, xxix, lit. sup., p. 21, xxxv, lit. sup., pp. 48-58, 81-86, and in the introduction to the Teubner edition of Euclid, v, pp. c-ci; Curtze, in *Philologische Rundschau*, i. 943-950, and in Bursian's *Jahresbericht*, xl. 19-21; Björnbo, in *B. M.*, vi. 239-248; Bubnov, *Gerberti opera mathematica*, p. 175, n.

²⁷ MS. Arundel 377, f. 71; MS. McClean 165, f. 84 v, with some differences.

²⁸ E. g., Delisle, *Cabinet des MSS.*, ii. 526.

²⁹ In the unpublished *De communibus mathematicæ*, cited from his forthcoming edition by David Eugene Smith in *Roger Bacon Essays* (Oxford, 1914), pp. 175 f. Cf. Thorndike, ii. 22, n.; Bridges, *The Opus Majus of Roger Bacon*, i. 6, n.; *B. M.*, xii. 98.

³⁰ MS. 251, ff. 10-13.

³¹ We should not take too seriously the statement of a fragment on chiromancy in B.N., MS. lat. n. a. 693, f. 97: 'Sciendum est quod quedam ars reperta est naturalis a quodam philosopho Edmundo qui antea fuerat Saracenus et vocabatur Maneanus sed transtulit hanc artem magister Adulwardus de greco in latinum.'

6. *Questiones naturales*. A dialogue with his nephew in seventy-six chapters, purporting to explain what Adelard has learned from the Arabs. Twenty MSS.³² and three early editions are known.³³ The Hebrew adaptation of the thirteenth century by Berachya under the title *Uncle and Nephew* has recently been edited by H. Gollancz, with a careless English version of the *Questiones* appended.³⁴ The printed text is poor;³⁵ a critical edition would be useful.

The treatise is dedicated to Richard, bishop of Bayeux, in an introductory letter³⁶ which speaks of Adelard's recent return to England in the reign of Henry, son of William. The nephew is reminded that the author left him and other pupils at Laon seven years before, in order to devote himself to the study of Arabic learning.³⁷ Since then Adelard has sojourned in the East, visiting specifically Tarsus and Antioch.³⁸ Now there were in this period two bishops of Bayeux named Richard, Richard Fitz-Samson, 1107-33, and his successor, Richard of Kent, 1135-42.³⁹ We should at first sight choose the former, as Adelard had begun to travel before 1116 and was at work on the Khorasmian tables

³² B. N., MSS. lat. 2389, 6286, 6385, 6415, 6628, 6739, 14700, f. 273, 18081, ff. 196-210 v; Laurentian, MS. Gadd. Rel. 74, ff. 4-34; Escorial, MS. O. iii, 2, f. 72; Montpellier, École de Médecine, MS. 145; Rheims, MSS. 872, 877; Prague, MS. 1650, ff. 54-68 v, with cc. 72 and 73 added on f. 69; British Museum, MS. Cotton Galba E. iv, ff. 214-228; Bodleian, MS. 2596, ff. 108-127 (formerly also in MS. 3538); MS. Digby 11, ff. 97-102 v (incomplete); Oxford, Corpus Christi, MS. 86, f. 163; Oriel, MS. 7, f. 189 (extract); Eton, MS. 161, lacking about a page at the end. Contrary to the statement of an early librarian, there is no reason for thinking the Eton MS. to be Adelard's autograph; indeed its incorrect readings (e. g. 'constantiam' for 'inconstantiam' in the first sentence to the nephew) point to an opposite conclusion. Bale, *Index*, ed. Poole and Bateson, p. 9, cites an unknown text with introductory verses.

³³ Louvain, without date, but probably 1480, 1484, 1490 (Hain-Copinger, i, no. 85, ii, no. 26; Proctor, nos. 9219, 9260; Pellechet, no. 48).

³⁴ *Dodi Ve-Nechdi* (London, 1920); Steinschneider, *H. U.*, pp. 463 ff.

³⁵ Cf. Soury in *B. E. C.*, lix. 417; I have followed chiefly MS. lat. 6415 (saec. xii).

³⁶ Published by Martène and Durand, *Thesaurus anecdotorum*, i. 291.

³⁷ 'Meministi nepos quod septennio iam transacto cum te in gallicis studiis pene puerum iuxta Laudis dunum una cum cunctis auditoribus meis dimiserim, id inter nos convenisse ut Arabum studia ego pro posse meo scrutarer, tu vero gallicarum sententiarum inconstantiam non minus acquirereres.'

³⁸ C. 32: 'Cum enim nuper a parte orientali venires qua causa studii diutissime steteras.' C. 16: 'Audivi enim quendam senem apud Tharsum Cilicię.' C. 51: 'Cum semel in partibus Antiochenis pontem civitatis Manistrę transires, ipsum pontem simul etiam totam ipsam regionem terrę motu contremuisse.'

³⁹ A copy of 'Adelermus Batensis' was in the library of the bishop in 1164: *Catalogue des MSS. des départements*, ii. 398, no. 112.

by 1126, if not by 1115, while he was certainly back in England in 1130. Richard of Kent, however, was a son of Robert, earl of Gloucester, and thus connected with the royal family, and Adelard's *Astrolabe* now shows him at work as late as ca. 1142.

The reference to Henry I is puzzling, since the king would naturally be taken for granted unless Adelard had left before his accession or returned after his death. In the former case the seven years' absence would place the treatise not later than 1107, while on account of the bishop's date it could not be earlier; in the latter case it would fall shortly after 1135, but, by reason of the seven-year period, at least as late as 1137. The first alternative would tend to place the *Questions* as early as the *De eodem*, whereas they show Arabic influences quite foreign to the *De eodem* and imply a longer period and wider range of travel.⁴⁰ On the other hand they show no Arabic words, such as are common in the *Liber ezic*, and no trace of Arabian mathematics or astronomy,⁴¹ so that on internal grounds one would place them early, much earlier than a dedication to Richard of Kent would imply. The *Questions* quotes no earlier work, nor does Adelard refer to it, save in the undated treatise on falconry below.

7 (?). A treatise on the elements or on origins. The *Questiones naturales* concludes as follows:

In hac enim difficultate tractandi de Deo, de noy, de yle, de simplicibus formis, de puris elementis disserendum est, quę sicut propriam naturam compositorum excesserunt ita et de eis disputatio alias omnes dissertationes et intellectus subtilitate et sermonis difficultate precellit. Nos igitur quoniam quędam de compositis diximus, vespere iam somno suadente quiete naturali mentes reficiamus. Mane autem, si tibi idem sedet, conveniamus ut de inicio vel de iniciis disputemus. *Nepos*. Michi vero nichil magis sedet. De Deo etenim mentem instruere quoniam patrem omnium fatemur honestissimum de eodem etiam argute dicere, quoniam auctoritatem non recipio, difficillimum est. De his vero quę id ipsum comitantur discutere, quoniam multi multa inde turbaverunt, utillimum est. Quietis ergo refectionem libens accipio ut ad tractatum novum novi veniamus.

Such a sequel on primary and fundamental things would naturally follow a treatise devoted to compound substances and things; and the passage can hardly be put aside as a mere literary device to avoid these difficult problems.⁴² At least one sequel to the *Questiones* has been found in the treatise on falconry, but no *De initiis* or similar work has

⁴⁰ Thorndike (ii. 44-49) discusses the order of the two works, tending to the same conclusion.

⁴¹ *Infra*, p. 38.

⁴² As by Thorndike, ii. 28.

yet been identified. It is, of course, possible that the treatise was never written, but its obvious importance for Adelard's philosophical ideas justifies further search in the cosmological writings of the twelfth century, where it may lurk anonymous or without a title, even as did until recently the treatise on falconry.

8. On falcons. Anonymous in Vienna, MS. 2504, ff. 49-51; incomplete in Clare College, Cambridge, MS. 15, f. 186-186 v.⁴³ See below, Chapter XVII; and *E.H.R.*, xxxvii. 398-400. That this treatise follows soon after the discussion of *cause rerum* in the *Questiones* appears from the opening sentence:

Quoniam in causis disserendis rerum animus noster admodum fatigatus sit, ad eiusdem relevationem id magis delectabile quam grave interponendum est.

This is the earliest Latin treatise on falconry so far known. It shows no trace of Arabic influence, but mentions English usage and English simples which suggest the Anglo-Saxon leechdoms. The citation of 'libri Haroldi regis' is further indication of Adelard's connection with the English royal court.

9. On the *Astrolabe*. Cambridge, Fitzwilliam Museum, McClean MS. 165, ff. 81-88;⁴⁴ incomplete at the beginning in British Museum, Arundel MS. 377, ff. 69-74. Apparently written at Bath, which is taken as the meridian for purposes of illustration.⁴⁵ The preface, found only in the McClean MS., reads as follows:

Incipit libellus magistri Alardi bathoniensis de opere astrolapsus

Quod regalis generis nobilitas artium liberalium studio se applicat valde assentio, quod rerum gubernandarum occupatio ab eodem animum non distrahit non minus ammiror. Intelligo iam te, Heynrice, cum sis regis nepos, a philosophia id plena percepisse nota. Ait enim beatas esse res pu[b]licas si a philosophis regende tradantur aut earum rectores philosophie adhibeantur. Huius rationis odore ut infantia tua semel⁴⁶ imbuta est in longum servat,⁴⁷

⁴³ Perhaps the *De educatione accipitrum* ascribed by Tanner (p. 38) to Aluredus Anglicus.

⁴⁴ Saec. xii, formerly in the possession of Prince Boncompagni (see Narducci, *Catalogo*, no. 360). The portion corresponding to the Arundel MS. begins in the middle of f. 83; there are four finely drawn figures at the close, ff. 87-88 v.

⁴⁵ 'Verbi gratia ad natale solum: Quia enim Bathonia lli^{ua} gradibus ab equinociali circulo et terra Ari distare cognoscitur, ideo et latitudo climatis eius totidem graduum esse perhibetur.' F. 82 v; cf. ff. 84 v, 85.

⁴⁶ MS. *senilis*.

⁴⁷ Cf. Horace, *Epist.*, i, 2, 69 f.:

'Quo semel est imbuta recens servabit odorem
Testa diu.'

quantoque gravius exterioribus oneratur, tanto ab eisdem diligentius se subtrahit. Inde fit ut non solum ea que Latinorum scriptis continentur intelligendo perlegas, sed et Arabum sententias super spera et circulis stellarumque motibus intelligere velle presumas. Dicis enim ut in domo habitans quilibet, si materiam eius et compositionem quantitatem et qualitatem sive distractionem ignoret, tali hospicio dignus non est, ita si qui in aula mundi natus atque educatus est tam mirande pulcritudinis rationem scire negligat, post discretionis annos indignus atque si fieri posset eiciendus est. His a te frequenter ammonitus, licet meis non confidam viribus, tamen, ut nobilitati philosophiam uno nostre etatis exemplo coniungam, postulationi tue pro posse meo dabo operam. De mundo igitur eiusque distractione quod arabice didici latine subscribam, hoc prescripto nodo ut cum mundus nec quadratus nec longilaterus nec alterius figure quam spericus sit, quicquid de spera dixerō de mundo dici intelligatur. Spera igitur globosum et rotundum corpus . . .

The treatise is accordingly dedicated to a young Henry, grandson (or nephew) of a king. In the earlier part of the twelfth century this can mean only Henry of Blois, bishop of Winchester, or Henry Fitz-Empress. The allusions to secular government would have no point in the case of Henry of Blois, who early became a Cluniac monk, and he is also excluded by chronological considerations, for by 1126, the earliest possible date for a treatise which cites the *Liber ezic*, he has become abbot of Glastonbury and passed well beyond *infantia*.⁴⁸ To Henry Plantagenet, on the other hand, early imbued with letters and receiving, perhaps, before the age of seventeen a collection of ethical maxims compiled for his benefit by William of Conches,⁴⁹ the introduction is entirely appropriate: he is a king's grandson, he is to become a ruler, he divides his time between books and practical affairs. As he is still *infans* and has not reached *discretionis annos*, this was doubtless written before 1149, when he was knighted, and 1150, when he became duke. If, as seems probable, the treatise was composed in England, it would then fall between 1142 and 1146, while Henry, between the ages of nine and thirteen, was living in his uncle's household at Bristol under the tutorship of Master Matthew.⁵⁰ Adelard has not been elsewhere found after 1130, but as he was then hardly more than fifty or thereabouts, he may well have lived far into Stephen's reign. The *Astrolabe* is one of Adelard's latest works. It cites the *De eodem*, the *Tables*, and the *Euclid*, and thus serves to bind his work together.

⁴⁸ Adam of Domerham, pp. 304-315; John of Glastonbury, p. 165.

⁴⁹ Haskins, *Norman Institutions*, p. 131. Hauréau's argument to this effect I now find less convincing.

⁵⁰ Gervase of Canterbury, i. 125. Cf. Miss Norgate, *Angevin Kings*, i. 334, 375; Round, *Geoffrey de Mandeville*, pp. 405-408.

10. *Ysagoga minor Iapharis mathematici in astronomiam per Adhelardum bathoniensem ex arabico sumpta*. Bodleian, Digby MS. 68, ff. 116-124; anonymous in British Museum, Sloane MS. 2030, ff. 83-86 v; formerly in Avranches MS. 235.⁵¹ An astrological treatise,⁵² evidently of abu Ma'ashar Ja'afar. Reference is made to the fuller treatment in the *Ysagoga maior*,⁵³ but it is not said that this has been translated.⁵⁴

11. *Liber prestigiorum Thebidis (Elbidis) secundum Ptolomeum et Hermetem per Adhelardum bathoniensem translatus*, a treatise on astrological images and horoscopes by Thabit ben Korra. Lyons, MS. 328, ff. 70-74; formerly in MS. Avranches 235.⁵⁵

12 (?). *Mappe clavicula*, dealing with the preparation of pigments and other chemical products. This work, which goes back to Greek sources and is of great interest for the history of technical processes, is printed in *Archaeologia*, xxxii. 183-244, from a manuscript of the twelfth century then in the possession of Sir Thomas Phillipps. The attribution to Adelard rests on the thirteenth-century table of contents (*Liber magistri Adelardi bathoniensis qui dicitur mappe clavicula*) in Royal MS. 15. C. iv of the British Museum; the treatise itself was missing from the manuscript as early as Tanner's time. Berthelot⁵⁶ has shown that Adelard cannot have been the author of the *Mappe clavicula* in its original form, for a version, free from Arabic elements, is found in a manuscript of Schlettstadt which goes back at least to the tenth century; but it is quite possible that Adelard is responsible for

⁵¹ *Catalogue des MSS. des départements*, x. 114.

⁵² 'Quicunque philosophie scientiam altiore studio constanti inquirens. . . . Hec igitur sunt loca excessuum cum quibus finem institutionis faciemus.'

⁵³ 'Horum autem singula in ysagoga maiore dicta sunt, nunc autem compendiose introducendis propius dicetur.'

⁵⁴ On the translations of the *Ysagoga maior* ascribed to John of Seville and Hermann the Dalmatian, see Steinschneider, *H. U.*, pp. 568 f.; infra, Chapter III, no. 3.

⁵⁵ 'Quicunque geometria atque philosophia peritus astronomie expertus fuerit ociosus est. Est enim astronomia omnium artium et re excellentissima et prestigiorum effectum commodissima. . . . Hec quidem omnia ceteraque circa principium enumerata in ysagogis exposita studiosa mente firmanda sunt, ut prestigiorum facultate artifex non decadat.' This translation is not mentioned in the list of Thabit's works given by Steinschneider (*Zeitschrift für Mathematik*, xviii. 331-338), nor identified in his discussion of the *Speculum* of Albertus Magnus (*ibid.*, xvi. 371), who cites it as a work of Hermes (*Catalogus codicum astrologorum Graecorum*, v. 100). Thorndike (i. 664) was the first to identify it.

⁵⁶ *La chimie au moyen âge*, i. 26-30; "Adalard de Bath et la Mappae clavicula." *Journal des savants*, 1906, pp. 61-66; and reprinted in his *Archéologie et science* (1908), pp. 172-177. Cf. Thorndike, i. 468, 765 ff., ii. 22 f.

the expanded form of the text, in certain chapters of which Arabic and English words occur.⁵⁷

13 (?). Commentary on the *Spherica* of Theodosius. The *Biblionomia* of Richard de Fournival mentions 'Dicti Theodosii liber de speris, ex commentario Adelardi.'⁵⁸ No such treatise has yet been identified.

14 (?). Miscellaneous notes. In Warner and Gilson's *Catalogue of Western MSS. in the Old Royal and King's Collections* we read under MS. 7 D. xxv (saec. xii):

Chronological, philosophical, astronomical, medical, and other collections, in Latin: evidently the book, or more probably copies from the book, of a man of unusual learning. It seems worth suggesting that this scholar may be Adelard of Bath. . . . who studied at Laon, was something of a Platonist, travelled in the East, and in other respects coincides with the indications of the volume.

This interesting suggestion cannot be positively established from the contents of the manuscript, which, however, clearly represents Adelard's generation and circle of interests. The lunar cycle, as the catalogue points out, is that of 1136-54. A series of notes on ff. 53 and 54, giving various Platonic doctrines on the universe, cites Plato, Chalcidius, Macrobius, and Censorinus. One (f. 53 v) gives the three divisions of the brain as in c. 18 of the *Questions*;⁵⁹ another (f. 54) reminds us of the Platonic theme of the *De eodem*:

Animam composuit Deus ex substantia et ex eodem et diverso, id est ex individuitate et vegetatione, ex mutabilitate et immutabilitate, anima ergo tertium genus nature est ex mutabilitate et immutabilitate mixtum.

The most curious passage is the following (f. 66), which occurs in the midst of a set of astronomical notes which have scattered Greek words:

Mons Amor reorum est locus medius mundi, ubi apposui mensuras et probavi per multa loca et posui lignum rea [*sic*] rotundum habens .xii. cubitos longitudinis et grossitudo illi cubitus unus et suspendi illum per funem et tantum commutavi eum de loco in locum in medio eius .vii. ⁶⁰ kal. iulii donec

⁵⁷ Cc. 190, 191, 195-200. Cf. also the Saracen recipe in c. 289. The *Mappe clavicula* is also found, anonymous, in the Bodleian, MS. Digby, 162, ff. 11 v-21 v. A metrical version, made from the Arabic, is ascribed to Robertus Retinensis: Steinschneider, *E. U.*, no. 102 d; infra, Chapter VI, p. 122.

⁵⁸ Delisle, *Cabinet des MSS.*, ii. 526, no. 42; Birkenmajer, *Biblioteka Ryssarda de Fournival* (Cracow, 1922), p. 53; infra, Chapter III, n. 42.

⁵⁹ Infra, n. 93; Chapter V, n. 59. The preceding passage suggests the *Questions*, c. 19, and there are other traces of the doctrines of Salerno.

⁶⁰ Read xi? In the last line we should read *exuperarer*.

suspendi illud in loco medii diei et residit suum cum splendor solis ex omnibus partibus et facta est umbra ipsius subtus cum rotunda sicut rotunditas ipsius ligni quod suspenderam; et de ipsa mensura cognovi quod medius mundus est in monte Amor reorum. Et tempore quo mensuravi hoc est annus .xxxviii. et vinum non bibi, oculi mei somno satiati non fuerunt, ne exuperaveram in eo quod inquirebam.

In this corrupt Latin we have apparently the record of an observation about the time of the summer solstice undertaken to determine the place where the sun was directly overhead. The mount of Amor apparently means Mount Moriah; at least it was in Palestine, mediaeval tradition placing the *umbilicus terre* at Jerusalem.⁶¹ Of course a vertical position of the sun could not really have been observed north of the tropics, but Palestine was the southernmost point in Christendom, and an observation in latitude $31^{\circ} 45'$ might approximate the desired result. In any case the painstaking character of the experiment is interesting, and it falls in with Adelard's habit of mind and his known travels in Syria. One cannot argue too closely from the cycle of 1136-54, which is in another hand and another portion of the manuscript; this would give 1115 as the latest date of the observation made thirty-nine years before. In any event, if Adelard is speaking, his visit to the East would fall in his youth.

It is not clear that the older bibliographers had other works of Adelard at their disposal. Tanner pointed out that the *De causis* and the *Problemata* are only other names for the *Questiones naturales*, and the incipit of the *De sic et non* indicates that it is probably a variant of the same treatise.⁶² Similarly the *De septem artibus liberalibus* apparently has the incipit of the *De eodem et diverso*. The *Computus astro-*

⁶¹ On the belief that Jerusalem was the navel and centre of the earth see W. H. Roscher, "Omphalos," in *Abhandlungen* of the Leipzig Academy, phil.-hist. Kl., xxix, no. 9, pp. 24-28 (1913); "Neue Omphalosstudien," *ibid.*, xxxi, no. 1, pp. 15-18, 73 f. (1915); A. J. Wensinck, "The ideas of the western Semites concerning the navel of the earth," in *Verhandelingen* of the Amsterdam Academy, xvii, no. 1 (1917). Different places were identified with the *umbilicus*, such as Bethel, Mount Moriah (infra, p. 339), and Garizim. Roscher, 1913, pp. 27 f., cites a passage of Gervase of Tilbury (ed. Leibnitz, p. 892; ed. Liebrecht, p. 1) to the effect that the well where Jesus conversed with the woman of Samaria was the centre of the earth since the sun at the solstice casts no shadow in it, a phenomenon which philosophers say occurs also at Syene (ca. lat. 24°). For Syene, see Macrobius, ed. Eyssenhardt, p. 600. In Adelard's Khorasman tables (p. 1) the 'medius locus terre' is Arin.

⁶² Or a continuation, as is suggested by the incipit given by Bale (1557, p. 184) and Pits: 'Meministi ex quo incepimus.' Without this incipit one would accept the suggestion of Poole and Bateson, in their edition of Bale's *Index* (1902), p. 8, that this is the well known work of Abaelard.

nomicus mentioned by Tanner is probably the Khorasmian tables; the *Compotus Adelardi*, formerly in the library of Christ Church, Canterbury,⁶³ may be either this work or, more probably, the *Liber abaci*. A treatise which follows the *Questiones* in a manuscript of the Laurentian library, which Bandini thought might have emanated from Adelard, belongs to the fourteenth century.⁶⁴ Jourdain conjectured that Adelard was the translator of the *Liber imbrum* of Ja'afar, but this is now known to be the work of Hugo Sanctallensis,⁶⁵ and the attribution to him of the translation of Euclid's *Optics* and *Catoptrics* is equally unfounded.⁶⁶ The cosmological treatise ascribed to Adelard in Cotton MS. Titus D. iv and analyzed by Thorndike (ii. 41-43) is the *De essentiis* of Hermann of Carinthia.⁶⁷ An interesting suggestion, made by Chasles and still awaiting confirmation, is that Adelard, as the translator of the Khorasmian tables,⁶⁸ is also the author of the translation of a treatise of al-Khwarizmi on Indian arithmetic, preserved in a unique manuscript at Cambridge,⁶⁹ which has an important bearing on the transmission of the Arabic system of reckoning to the West.

What can be gleaned from all this for Adelard's biography is disappointingly meagre. He was born in Bath, which he calls *natale solum*, and styles himself English;⁷⁰ but he early went to France, where he studied at Tours and taught at Laon. In this period of his life he found opportunity for travel, penetrating as far as Magna Graecia and, it would seem, Sicily before 1116 and probably before 1109. After leaving Laon he spent seven years in study and travel, and can be traced in Cilicia and Syria and pos-

⁶³ James, *Ancient Libraries of Canterbury and Dover*, p. 49. Contrary to Dr. James's conjecture (p. 508) this manuscript can hardly be Cotton MS. Caligula A. xv, part 2.

⁶⁴ MS. Gadd. rel., no. 74, f. 38 v: 'Anno gratie 1303 quo ego Petrus Paduanensis hunc librum construxi.'

⁶⁵ *Infra*, Chapter IV, n. 41.

⁶⁶ *Infra*, Chapter IX, n. 102. Dr. Dee also (James, *List*, no. 165) suggested Adelard as the author of the *De differentia spiritus et anime* of Costa ben Luca.

⁶⁷ *Infra*, Chapter III, n. 17.

⁶⁸ And, probably, of no. 4, above, p. 24.

⁶⁹ University Library, MS. II. vi. 5, f. 102, published by Boncompagni, *Trattati d'aritmetica*, 1 (Rome, 1857). See *Comptes rendus de l'Académie des Sciences*, xlviii. 1059 (1859); *Z. M. Ph.*, xxxiv, sup., p. 132; *Abhandlungen zur Geschichte der Mathematik*, x. 11; Cantor, i. 713, 906.

⁷⁰ *E. H. R.*, xxxvii. 398; *supra*, n. 45; *infra*, Chapter XVII. He also calls England his 'patria' in the dedication of the *Questiones*.

sibly, by 1115, in Palestine. By 1126 he is back in the West, occupied with making the astronomy and geometry of the Arabs available to the Latin world.⁷¹ Bath again becomes his residence, and in 1130 as 'Adelardus de Bada' he receives 4s. 6d. from the sheriff of Wiltshire.⁷² His relations with the court, as well as his account of his life as a student and his green cloak,⁷³ are quite inconsistent with the common assertion that he was a monk; I can find no contemporary authority for this statement, which doubtless owes its origin to a confusion with the monk Adelard of Badiniun, who, a century earlier, wrote a life of St. Dunstan.⁷⁴ The name 'Goth,' which is applied to Adelard in certain manuscripts of the translation of Euclid,⁷⁵ I cannot pretend to explain; it may be a mere corruption of Bath, or it may possibly refer to a sojourn in northern Spain. It seems probable that Adelard visited Spain, not only because this was the nearest abode of Saracen learning, but because he used a Spanish edition of al-Khwarizmi, yet it is always possible that he received this text indirectly. The date of his death is unknown, though the discovery of his relations with the future Henry II prolongs his activity at least as far as 1142, later than has commonly been supposed. Here, as so often, we have to lament the loss of the Pipe Rolls between 1130 and 1155.

Three bits of evidence connect Adelard with the Anglo-Norman court. First of all, the pardon of a murder fine of 4s. 6d. in Wiltshire in the Pipe Roll of 1130 is not only made by royal writ, but, as Poole has pointed out,⁷⁶ is the kind of favor customarily granted to those in the employment of the court. Next, the dedication of the *Astrolabe* to the young Henry, his pupil; and, in the third place, the mention of 'King Harold's books' in the treatise

⁷¹ 'Nos vero latinorum studemus utilitati': MS. Chartres 214, f. 41; MS. Mazarine 3642, f. 83.

⁷² Pipe Roll, 31 Henry I, p. 22.

⁷³ *Questiones*, c. 2.

⁷⁴ Stubbs, *Memorials of St. Dunstan*, p. xxx; cf. Tanner, p. 55.

⁷⁵ Bodleian MS., Selden Arch. B. 13; *Zeitschrift für Mathematik*, xxv, sup., p. 144; *Philologische Rundschau*, i. 946; *Centralblatt für Bibliothekswesen*, xvi. 262; Hänel, *Catalogus Librorum MSS.*, col. 786.

⁷⁶ *The Exchequer in the Twelfth Century* (Oxford, 1912), pp. 56 f. Cf. also the suggestion respecting the queen in n. 12, *supra*.

on falconry, itself a royal sport. Adelard may well, as Poole suggests, have been an officer of the Exchequer, where his arithmetical talent would have proved useful, but I see no reason for going on to associate him with the introduction of the abacus there, which seems to me of earlier origin.⁷⁷

Of Adelard's other relations we know but little. One of his works is dedicated to the bishop of Syracuse, one to the bishop of Bayeux, another to a certain H. In three of them an unidentified nephew appears, though not necessarily the same person in each instance. The only reference to Adelard on the part of a contemporary is that of an enigmatical Ocreatus, possibly named John, who dedicates to Adelard the translation of an Arabic treatise on arithmetic which he has produced *iussus ab amico immo a domino et magistro*.⁷⁸ No other of Adelard's pupils is known, saving always Henry II. What we should most like to know is the extent and nature of Adelard's connections with the other translators and scholars of his age, but here we have little more than possibilities. His version of the Khorasmian tables seems in some way connected with Petrus Alphonsi, while it was in turn revised by Robert of Chester.⁷⁹ So his commentary on the *Spherica* of Theodosius recalls the citation of this work by Hermann of Carinthia.⁸⁰

The range and variety of Adelard's interests can be judged from his writings, extending, as they do, from trigonometry to astrology and from Platonic philosophy to falconry, perhaps even to applied chemistry. He had a style of his own, easily recognizable by his readers, and a certain gift of apt illustration, while the treatise on falconry shows that he had none of the philosopher's disdain for the ordinary and the practical. Of the originality and

⁷⁷ *Infra*, Chapter XV.

⁷⁸ *Prologus N. Ocreati in Helceph ad Adelardum batensem magistrum suum*, edited by Henry in *Zeitschrift für Mathematik*, xxv, sup., pp. 129-139. Cf. Steinschneider, *E. U.*, no. 70; Cantor, i. 906, where the confusion with Bayeux rests upon an incorrect reading of the manuscript. Bernard, *Catalogi*, no. 8639, ascribes a version of Euclid to 'Ioannes Ocreatus,' but the first leaf of this MS. is now gone and the remainder bears no such indication. See Warner and Gilson's *Catalogue of the Royal MSS.* under 15 A. xxvii.

⁷⁹ *Infra*, Chapter VI, n. 31.

⁸⁰ *Infra*, Chapter III, n. 42.

profundity of his knowledge it is less easy to speak until his mathematical work has been more thoroughly sifted by specialists and its relations to his predecessors have been fixed. We now know him most fully as a philosopher, but his philosophical writings belong to his earlier years, and it is by no means clear that we here have him at his best.

In the *De eodem et diverso* Adelard speaks as a disciple of Plato, *princeps philosophorum*, from whose *Timaeus* he derived the theme of unity and diversity.⁸¹ His Platonism is in general that of Chartres, and shows here no influence of Aristotle's science or of Arabic learning. In form the treatise reflects Martianus Capella and the *De consolacione* of Boethius. In the allegory which passes before Adelard's vision permanence is represented by Philosophy, surrounded by the seven liberal arts; change and decay by 'Philocosmia,' the love of this world, with appropriate companions. Philosophy, having won the debate, proceeds to explain briefly the nature of the seven arts in traditional fashion, though the more concrete temper of the author reveals itself at the end in an explanation of the geometrical determination of the height of a tower and in an account of a debate with a Greek philosopher of southern Italy on topics of natural philosophy. Adelard shows the influence of the atomic theory of Democritus. On the question of universals he seeks to reconcile Plato and Aristotle in the so-called theory of non-difference.

The *Questiones naturales* is written professedly to explain the new knowledge which Adelard has acquired from 'his Arabs,' under whose name it presents, as Thorndike has pointed out,⁸² theories for which he does not care to assume personal responsibility. Although the *Questiones* is in no sense a systematic treatise, the seventy-six problems are taken up in a regular order. The first six chapters deal with plants: why they grow from earth where there are no seeds; how plants of opposite natures spring from the same soil; why the other three elements do not produce plants, and whether each of the four brings forth its appropriate

⁸¹ See Willner's analysis, *Beiträge*, iv, no. 1; and cf. Ueberweg-Baumgartner¹⁰, ii. 244, 311 f. Thorndike (ii. 48) is in error in seeking the source in Aristotle.

⁸² ii. 25 f.

products; why fruit follows the graft rather than the trunk. The explanations are based upon the four elements and the four qualities of the Greeks as formulated by Galen, the so-called elements of our apprehension being in reality compounds, in which, however, the real element in each case preponderates. Then come chapters on animals (7-14), where the questions concern digestion, in ruminants and birds, and its products; the better sight of certain animals in the dark, explained by the humors of the eye; and the question whether animals have souls, a matter of current debate which Adelard decides in the affirmative, on the ground that they possess not only bodily sensation but the judgment which is a property of the soul. With chapter 15 we reach man, at first with the scarcely profitable question why mankind lacks horns or other bodily means of defence, and then with a brief note on the object of the network of muscles and veins. The following problems (cc. 17-32) are chiefly psychological: the relation of memory to mental ability, the parts of the brain allotted to memory, imagination, and reason; hearing and sight and the other senses — with interspersed speculation as to the position of the nose above the mouth and the nature of baldness. Chapters 33 to 47 deal with the human body: breathing, the inequalities of the fingers, erectness in walking, food, the different temperaments of the sexes, and dead bodies. The remainder of the treatise (cc. 48-76) treats of meteorology and astronomy. How is the globe supported in the air? If the earth were perforated, how far would a body fall in the perforation, the author concluding correctly that it would stop at the centre. What is the cause of earthquakes and tides, of the saltness and constant volume of the sea, of the freshness of springs and rivers, of thunder and lightning and the course of the winds? Thunder is occasioned by the noise of hail and ice; the tides come, not from the moon, but from the flux and reflux occasioned by the meeting of waters from the several arms of the sea, a passage in which Adelard repudiates the influence of the moon and gives currency to the error introduced into the West by Macrobius.⁸³ At last (c. 69) we reach the upper world with the

⁸³ C. 52. Cf. Duhem, iii. 116 f. The text is not entirely clear. MS. lat. 6415 does not mention the moon but refers to the inundations of the Nile. The printed text

darkness and shadows of the moon, the course of the planets and the outer all-containing *aplanos*, and the life of the stars. The stars are alive, and so is the *aplanos*, though in one sense the *aplanos* may be called God. The nature of God, however, along with all questions of simple forms and pure elements, is, in conclusion, put off till another day.

In all this there is not much that comes from the Arabic, nor is any Arabic authority or phrase specifically quoted. Not only is the theory of innate ideas entirely Platonic,⁸⁴ but Plato is frequently cited, in one case in a long extract from the *Timaeus*.⁸⁵ We have references to the *Topica*, *Musica*, and *De consolacione* of Boethius.⁸⁶ Other Latins are Statius, Terence, Horace, and the *Saturnalia* of Macrobius.⁸⁷ So far we are within the same range of reading as in the *De eodem*. Now as to Aristotle: Adelard quotes *inter Aristotelicas sententias*⁸⁸ the principle that, when anything is added to anything, the whole becomes greater; he cites as Aristotle's a passage on motion which goes back ultimately to the *Physics*;⁸⁹ and he gives as authority for the localization of the three faculties in the brain *Aristotiles in Physicis et alii in tractatibus suis*.⁹⁰ Still more striking is the reminiscence of the *Physics* in a passage on motion where no authority is given.⁹¹ In this sense he might be claimed as the first Latin writer of the Middle Ages to cite the Aristotelian physics,⁹² but such scanty fragments has 'Caribdis' in place of the Nile. Gollancz by an extraordinary slip renders this 'Caribbean'!

I cite chapters after the edition, folios in MS. lat. 6415. Thorndike gives an interesting summary (ii. 23-41).

⁸⁴ C. 28. See Hauréau, *Philosophie scolastique* (1872), i. 355.

⁸⁵ Cc. 23 (= *Timaeus*, cc. 45 f.), 24, 27, 28, 29.

⁸⁶ Cc. 20-23, 46.

⁸⁷ Cc. 35, 49, 53, 55.

⁸⁸ C. 34. Cf. in c. 10 the ascription to Aristotle of the theory of two entrances to the stomach.

⁸⁹ 'De actione itaque earum et notandum in quo non meam set Aristotilis accipe sententiam, immo quia ipsius ideo meam: quidquid enim movetur, ait, aut vi aut natura aut voluntate moveri convenit.' C. 74, f. 38 v; cf. *De physico auditu*, 8, 4, 1.

⁹⁰ C. 18.

⁹¹ C. 60; cf. *De physico auditu*, 8, 5; and pp. 109 f. of the essay of Baumgartner cited below.

⁹² Duhem, "Du temps où la scolastique latine a connu la Physique d'Aristote," in *Revue de philosophie*, xv. 163 (1909) (cf. *Système*, iii. 188-193), gives Thierry of Chartres as the first. bv way of Macrobius.

hardly indicate a first-hand acquaintance. Indeed the only specific citation, that concerning the localization of the faculties, seems to come, not from Aristotle, but from Galen, from whom it and certain theories of the elements apparently reached Adelard and the later twelfth century via Constantine the African.⁹³ What, then, is most clearly of Arabic origin is the physiological part of the *Questiones*, and the sources for this were available to Adelard in southern Italy. There is no evidence that Adelard as yet knows Arabic or has assimilated the Arabic mathematics and astronomy for which he was later distinguished, and there are none of the Arabic words which appear freely in his astronomical works. From internal evidence, the *Questiones* belongs to Adelard's earlier rather than his later years, and there is nothing in it which he could not have found in Italy.

Adelard would probably have said that what he acquired from the Arabs on subjects of physics was not so much facts or theories as a rationalistic habit of mind and a secular philosophy. The recourse to observation and experiment, already evident in the *De eodem*, appears likewise in the *Questiones*, in spite of its reliance for the most part on *a priori* reasoning. The author knows that a distant blow is seen before it is heard;⁹⁴ he has stood on a bridge in Syria during an earthquake;⁹⁵ and he has watched the workings of a vessel in which water is held up by pressure of the air.⁹⁶ Indeed, in explaining the last phenomenon, he first enunciates the theory of the continuity of universal nature, as Thorndike has shown.⁹⁷ He also asserts the indestructibility of matter, but on the authority of an unnamed philosopher.⁹⁸

⁹³ Werner, "Wilhelm von Conches," in Vienna *Sitzungsberichte*, lxxv. 387 (1873); Baumgartner, *Die Philosophie des Alanus de Insulis* (*Beiträge*, ii, no. 4), pp. 19, 94; Soury, in *B. E. C.*, lix. 417; infra, Chapter V, n. 60. On Constantine's influence on the medicine of the twelfth century, see Sudhoff, in *Archiv für Geschichte der Medizin*, ix. 348-356 (1916).

⁹⁴ C. 68.

⁹⁵ C. 50; supra, n. 38.

⁹⁶ C. 58.

⁹⁷ ii. 37-40; and in *Nature*, xciv. 616 f. (1915). Thorndike raises the question whether Adelard may have been acquainted with the *Pneumatica* of Hero. This was known in Sicily by 1156: infra, Chapter IX, n. 115.

⁹⁸ 'Unde phylosophus de mundo loquens ait, Nec quicquam ex eo recessit nec est addendi facultas, cunctis in se coercitis, sed corruptela partium senescentium intra se vicem quandam obtinet cibatus. Et meo certe iudicio nichil sensibili mundo

"It is hard to discuss with you," Adelard tells his nephew, "for I have learned one thing from the Arabs under the guidance of reason; you follow another halter, caught by the appearance of authority, for what is authority but a halter?" Say what you please, for you will always find hearers who will demand no reason for an opinion but will accept anything on the weight of an ancient name. "If reason is not to be the universal judge, it is given to each to no purpose." Those who are considered authorities first reached that position by virtue of the exercise of their reason. Use reason first, then add authority, for authority alone cannot bring conviction to a philosopher.⁹⁹ Later he says: "I call myself a man of Bath, not a Stoic, wherefore I teach my own opinions, not the errors of the Stoics."¹⁰⁰ In like manner God is not to be used as a blanket explanation of things accessible to human understanding. At the outset Adelard reminds the interlocutor that, while plants spring from the earth by God's will, this does not act without a reason.¹⁰¹ Human science must first be listened to, he says a little later, and "only when it fails utterly should there be

moritur nec minor est hodie quam cum creatus est, si qua enim pars ab una coniunctione solvitur non perit sed ad aliam societatem transit.' C. 4, f. 25.

"De animalibus difficilis est mea tecum dissertio. Ego enim aliud a magistris arabicis didici ratione ducere, tu vero aliud auctoritatis pictura capistrum captus sequeris. Quid enim aliud auctoritas est dicenda quam capistrum? Ut bruta quippe animalia capistro quolibet ducuntur nec quo vel quare ducantur discernunt restemque quo tenentur solum secuntur, sic nec paucos vestrum bestiali credulitate captos ligatosque auctoritas scriptorum in periculum ducit. Unde et quidam nomen sibi auctoritatis usurpantes nimia scribendi licentia usi sunt, adeo ut pro veris falsa bestialibus viris insinuare non dubitaverint. Cur enim cartas non impleas? Cur et a tergo non scribas, cum tales fere huius temporis auditores habeas qui nullam iudicii rationem exigant, tituli nomine tantum vetusti confidant? Non enim intelligunt ideo rationem singulis esse datam ut intra verum et falsum ea prima iudice discernant. Nisi enim ratio universalis iudex esse deberet, frustra singulis data esset. Sufficeret enim preceptorum scriptori datam esse, uni dico vel pluribus, ceteri eorum institutis et auctoritatibus essent contenti. Amplius: ipsi qui auctores vocantur non aliunde primam fidem apud minores adepti sunt, nisi [MS. non] quia rationem secuti sunt quam quicunque nesciunt vel negligunt merito ceci habendi sunt.' C. 6, f. 25 v. The passage 'Quid . . . ducit' is quoted with approval by Roger Bacon (ed. Bridges, i. 5 f.), who had much in common with Adelard.

¹⁰⁰ C. 28, f. 30.

¹⁰¹ 'Voluntas quidem Creatoris est ut a terra herbe nascantur, sed eadem sine ratione non est.' C. 1, f. 24.

recourse to God" as an explanation.¹⁰² Proximate, not ultimate, causes are Adelard's theme, and his theories of God, mind, and matter are reserved for the *De iniliis*.

The popularity of the *Questiones naturales* in the Middle Ages is attested by the twenty surviving copies, in which it frequently accompanies the *Naturales quaestiones* of Seneca.¹⁰³ It was probably used by Alexander Neckam and Thomas of Cantimpré.¹⁰⁴ It is quoted by Vincent of Beauvais and Roger Bacon in the thirteenth century,¹⁰⁵ and by Pico della Mirandola in the fifteenth.¹⁰⁶ Three editions appeared before 1500. It was the basis of the Hebrew dialogue *Uncle and Nephew* (*Dodi Ve-Nechdi*).¹⁰⁷

In significant contrast to the speculative and discursive character of the *Questiones* stands the *Astrolabe*, which was written in the later years of Adelard's life. Once more he explains 'the opinions of the Arabs' to an eager listener, this time concerning the sphere and the stars, though we must not take too seriously and literally the precocious interest of the young Henry or the author's references to philosophers as kings. Succinct, clear, and sharp, the treatise presents in systematic form the preliminary astronomical facts and the various applications of the astrolabe. Arabic terms are freely used, and for fuller discussion the reader is referred to Adelard's other works, the *De eodem*, Euclid, and especially the Khorasmian tables. Virgil, Horace, and Cicero are each quoted once, but without digression, and Ptolemy replaces Plato. We have once more the Adelard of the *Liber ezic*.

¹⁰² 'Deo non detraho, quicquid enim est ab ipso et per ipsum est. Id ipsum tamen non confuse et absque discretione non [sic] est, quæ quantum scientia humana procedat audienda est, in quo vero universaliter deficit ad Deum referenda est. Nos itaque quia nondum [non Deum?] in scientia pollemus ad rationem redeamus.' C. 4, f. 25.

¹⁰³ MSS. lat. 6286, 6385, 6628; and with other fragments of Seneca in MS. Reims 872 and MS. Prague 1650. See also MS. O. iii. 2 of the Escorial, whose contents should be compared with a volume given to Bec in 1164 (*Catalogue des MSS. des départements*, ii. 398, no. 112).

¹⁰⁴ Thorndike, ii. 196, 379.

¹⁰⁵ E. g., *Speculum naturale*, v, cc. 13, 31, vi, cc. 6, 7; *Opus maius*, ed. Bridges, i. 5 f.

¹⁰⁶ Duhem, iii. 116 f.

¹⁰⁷ Ed. Hermann Gollancz (London, 1920).

Adelard occupies a position of peculiar importance in the intellectual history of the Middle Ages. Standing at the point where the traditional knowledge of the cathedral schools meets the new learning of southern Italy and the Mohammedan East, his attitude was one of personal inquiry and not mere blind receptivity. The first, so far as we know, to assimilate Arabic science in the revival of the twelfth century, to him we owe the introduction of the new Euclid and the new astronomy into the West. Moreover he was a pioneer in more than a chronological sense. He went out to seek knowledge for himself by travel and exploration, penetrating as far as Sicily and Syria and, probably, Spain; and he showed a spirit of independent inquiry and experiment quite his own. Fragmentary as our information is, it reveals something of the originality and many-sidedness of the man; and if further research should lead to new discoveries concerning his life or writings, it will throw light on one of the most interesting and significant figures in mediaeval science.

CHAPTER III

HERMANN OF CARINTHIA

AMONG the scholars who in the twelfth century brought the science and philosophy of the Arabic world to western Europe, not the least important was Hermann of Carinthia, variously known as the Dalmatian, the Slav, or, to distinguish him from the earlier Hermannus Contractus, the Second. Somewhat younger than Adelard of Bath and less important than Gerard of Cremona, he must still be reckoned among the notable pioneers in the field of Saracen learning. *Acutissimi et literati ingenii scholasticus*,¹ he contributed to mathematics and philosophy as well as to astrology and astronomy, and in the case of one work of ancient science, the *Planisphere* of Ptolemy, his translation constitutes the sole intermediary through which this classical treatise has survived to later times. Moreover, while the origins of most of the other translators of this period remain unknown, Hermann's relations with the school of Chartres bring him into connection with the cathedral schools of the earlier twelfth century and link him with their Platonism as well as with the Aristotelianism of the Arabs. His real work, also, was long eclipsed by confusion with two others of the same name who wrote on similar themes, Hermannus Contractus, monk of Reichenau in the eleventh century, and Hermannus Alemannus, a translator of philosophical works from the Arabic in the thirteenth century;² and it is only in recent years that he has been disentangled, in part at least, from these and placed in his proper setting, while still more recently his authorship of the version of the *Planisphere* has been vindicated against his pupil Rudolf of Bruges. His work, however, has not

¹ Peter the Venerable, in Migne, *Patrologia*, clxxxix. 650.

² On Hermannus Contractus, see below. On Hermannus Alemannus, see the references in Chapter I, n. 51. Jourdain, *Recherches*, is still useful in distinguishing them.

heretofore been studied as a whole.³ Let us begin with a list of his writings:

1. *Zaelis Fatidica*, or *Pronostica*, also known as *Liber sextus astronomie*. A translation of the *De revolutionibus* of the Jewish astrologer Saul ben Bischr (see Steinschneider in *Z. M. Ph.*, xvi. 388-390; *H. U.*, pp. 603-607; *E. U.*, no. 51): 'Secundus post conditorem orbis . . . minus fiunt efficaces.' Vatican, MS. Pal. lat. 1407, ff. 18-38; Metz, MS. 287, ff. 333-350 (saec. xv); University of Cambridge, MS. Kk. iv. 7, f. 102; Caius College, MS. 110, f. 295 (James, *Catalogue*, i. 115, ii. 542); Pembroke College, MS. 227, f. 133 (James, p. 205); Bodleian, MS. Digby 114, ff. 176-199. In all of these the translator is given as Hermann. For other possible MSS. see Thorndike, ii. 391. The date appears in the Metz and Digby MSS., the latter of which has, 'Explicit fedidica Zael Banbinxeir Caldei translatio Hermanni⁶¹ astronomie libri. Anno domini 1138. 3^o. kal. octobris translatus est' (where by misreading '61' as 'G1' Macray attributed the translation to Gerard of Cremona; and by misreading 'Hermanni' as 'hec mam' Thorndike, ii. 84, makes matters worse). The phrase 'sixth book' apparently refers to some Arabic collection; it can hardly already be Hermann's sixth book. This is the earliest dated work of Hermann; the place is not indicated, and there is no accompanying preface.

2. (?) Translation of the Khorasmian tables. In Hermann's version of Albumasar we read:

in sectionibus formis tardis

Quorum plus fialcurdaget azerea secundum fialcurdaget albatia tractatur, que in translatione nostra zigerz Alchuarismi sufficienter exposuimus.⁴ So a note to his *Planisphere* speaks of 'Albatene et Alchoarismus quorum hunc quidem opera nostra Latium habet.'⁵ As we already know of a version made by Adelard of Bath in 1126 and revised by Robert of Chester,⁶ these statements do not simplify the problem, nor has any MS. been found with Hermann's name.

³ The principal modern accounts are those of Wüstenfeld, pp. 48-50; Steinschneider, *H. U.*, pp. 534 f., 568 f., and *E. U.*, no. 51; Clerval, "Hermann le Dalmate," in proceedings of the *Congrès international des catholiques* of 1891 (also separately, Paris, 1891), and *Les écoles de Chartres* (Paris, 1895), pp. 188-191; Björnbo, in *B. M.*, iv. 130-133 (1903); Thorndike, ii. 84 f. Bosmans, in *Revue des questions scientifiques*, lvi. 669-672 (1904), I have not seen.

⁴ Naples, MS. C. viii. 50, f. 43. Cf. Steinschneider, *H. U.*, p. 568.

⁵ Ed. Heiberg, p. clxxxvii. Cf. Suter, *al-Khwarismi*, p. xiii. Thorndike's proposal (ii. 85) to translate 'hunc' as 'the former' disregards Latin idiom without clarifying the situation.

⁶ *Supra*, Chapter II, n. 16; *infra*, Chapter VI, n. 32.

3. Translation, in eight books, of the *Maius introductorium* to astrology of abu Ma'ashar Ja'afar al-Balki (Albumasar); a less slavish version than the contemporary one by John of Seville. See Steinschneider, in *Zeitschrift der deutschen morgenländischen Gesellschaft*, xviii. 170-172; *H. U.*, pp. 567 ff; *E. U.*, no. 51; and especially Dyroff, in Boll, *Sphära*, pp. 484 f. There is a copy of the twelfth century in the Biblioteca Nazionale at Naples, MS. C. VIII. 50, ff. 1-56 v⁷; also in Corpus Christi College, Oxford, MS. 95, f. 60; Bodleian, MS. Laud 594, ff. 144-153 (incomplete); Erfurt, MS. Ampl. Q. 363, f. 38; Florence, Conventi soppressi, J. II. 10, ff. 1-54 v (*B. M.*, xii. 195); Vatican, MS. Vat. lat. 4603; Parma, MS. 720, f. 1; Manchester, Rylands Library, MS. 67, f. 170; also formerly among the MSS. of Petau, Montfaucon, *Bibliotheca Manuscriptorum*, p. 87 b. Apparently the "Albumasar minor Hermanni" of the Sorbonne catalogue (Delisle, *Cabinet des MSS.*, iii. 68). Printed at Venice, in 1489, 1495, 1506; see Steinschneider, *H. U.*, p. 568. Cited under Hermann's name by Roger Bacon, *Opus tertium*, ed. Brewer, p. 49. This translation is probably of 1140⁸ and in any case anterior to 1143, being cited in the introduction to the *De essentiis*⁹ and probably in the *Planisphere*.¹⁰ The introduction,¹¹ addressed to Robertus Kettenensis, reads as follows:

*Liber introductorius in astrologiam Albumazar Albalachi*¹²

Apud Latinos artium principiis quedam ars extrinseca prescribi solet. Librum autem iniciis non scripto ullo autentico quidem ego in ea lingua invenerim, set doctorum sua cuiusque sententia aditus paratur. Apud Arabes contra. Duorum siquidem primum nec advertisse videntur umquam, ta-

⁷ The subscription which Björnbo declared illegible (*B. M.*, iv. 133) reads: FINIT. ΘΠΑΚΘΟC. ΑΒΟΜΑΤΖΑΡ. ΑΑΒΑΑΚΕΤ. FHPMANNT. CHKONΔΤ. ΘΠΑΝCΑΑΘΤΩ. ΦΗΑΤΚΤΘΗΡ. Θ is of course T. The small λ is confused by the scribe with α. I have rendered by F the peculiar form for Roman H, an F without the upper stroke.

⁸ So the printed text as cited in Duhem, iii. 175 f. The Naples MS. (f. 32) omits the current year.

⁹ 'Quas Abumaixar in annalibus suis usque ad .iii. milia numerat, quem numerum nec nos in eiusdem libri translatione pretermisimus.' MS. Naples, C. viii. 50, f. 70; MS. Corpus Christi 243, f. 105; MS. Titus D. iv, f. 112 v. Albumasar is frequently cited in this work: MS. Naples, ff. 61, 63, 65, 67, 70, 74, 74 v, 75 v; MS. Corpus, ff. 94 v, 97, 99, 101, 104 v, 108 v, 109, 111 v.

¹⁰ 'Ad imitationem alterius translationem nostre.' Heiberg, p. clxxxiii, line 8. Cf. the mention of Albumasar as amplifying the *Quadripartitum* on p. clxxv.

¹¹ Steinschneider, *H. U.*, p. 568, cites various remarks of Hermann inserted in the text, which Dyroff calls a 'Bearbeitung' rather than a mere translation.

¹² Corpus Christi College, Oxford, MS. 95, f. 60, with some variants from Naples, MS. C. viii. 50, f. 1.

metsti particulatim nonumquam ac sparsim assumant, nostro tamen iudicio non parum necessarium. Secundum vero commenticium quidem illis nec scripto dignum visum est tanquam egregium aliquod inventum scripture commendatum. Ab hoc igitur secundo genere huius operis auctor incipiens, .vii., inquit, sunt omnis tractatus inicia: auctoris intentio, operis utilitas, nomen auctoris, nomen libri, locus in ordine discipline, species inter theoriam et practicam, partitiones libri. Quod apud nos quinquipertito sufficeret, operis videlicet titulo, auctoris intencione, finali causa,¹³ modo tractandi, et ordine, que omnis fere tam ¹⁴ tractatus quam orationis exordio et necessaria et sufficere videntur, suam tamen singulis reddit causam. Que cum ego, prolixitatis exosus et quasi minus attinencia cum et hunc morem Latinis cognoscerem preterire volens, ab ipso potius tractatu exordiri pararem, tu mihi studiorum omnium ¹⁵ specialis atque inseparabilis comes rerumque et actuum per omnia consors unice, mi Rodberte, si memor es, obviasti dicens: "Quamquam equidem nec tibi pro more tuo, mi Hermanne, nec ulli consulto aliene lingue interpreti in rerum translationibus a Boecii sententia quadam ulla-tenus divertendum sit, ita tamen alienum intersequendum videtur nec precuratur presertim ne ¹⁶ qui librum hunc in arabica lingua legerit si in latina non ab exordio suo qua[m] primum legentis intuitus inciderit inceptum videat, non industriam set ignoranciam putans et operis forsan integritatem detrimenti et nos devie digressionis arguat." Parui quidem, cum ipsum etiam laborem tuo potissimum instinctu aggressus sim, ut siquid ex hoc nostro studio latine copie adiciatur, non mihi maius quam tibi meritum rependatur, cum tu quidem et laboris causa et operis iudex et utriusque testis certissimus existas. Expertus quippe tu nichilominus quam grave sit ex tam fluxo loquendi genere quod apud Arabes est latine orationi congruum aliquod commutari atque in hiis maxime que tam artam rerum imitationem postulant. Hiis habitis, ne longius differatur, ab ipsius verbi tractatus initium sumamus. Intentionis, inquit, expositio rei summam breviter et absolute proponens discentis animum attentum parat et docilem utilitatis promissio laborem allevians internum animi quandam affectum adaptat. Auctoris nomen duabus de causis necessarium est, tum ut opus autenticum reddat tum ne alii dum vagum et incerti sit nominis immerito ascriptum iniustam parat gloriam. Libri nomen intentionis testimonio accedit, locus in ordine discendi animum discentis, quo lectio quid legendum sit instruens ad disciplinarum intellectum non inconsulte dirigit. Scientie genus partitionumque numerus et expositio attentum item reddunt et docilem. Quoniam igitur inter omnes huius artis scriptores nullus hactenus inventus est qui contradicentibus responderet vel approbantibus argumentum daret, ad hec nec ullus qui plenarie totam scriberet artem, nostra quidem in hoc opere intentio et illis resistere et hiis firmamentum dare et integram divino auxilio artem tradere, unde non minimam hanc utilitatem consequi manifestum sit, ne qui deinceps operam huic artificio dederint, quia diversa ex diversis operibus

¹³ *finali causa* inserted from Naples MS.

¹⁴ MS. *tum*.

¹⁵ Not *olim*, as in the printed text.

¹⁶ So Naples MS. The Corpus MS. has *precuratur presertim nec*. For the method of Boethius see Chapter XI, n. 37.

adminicula necessaria sint, vel desistant vel deficiant. Tantum igitur opus certis et auctoris et libri nominibus confirmari necessarium duximus, quem titulum prescribentes dicimus introductorium in astrologiam Albumasar Albalachi, qua de causa etiam post astronomiam in astrologiam primo loco legendus sit, in theoricam scilicet huius artis partem principaliter atque generaliter editus, .viii. partitionum numero discretus, queque suis differentiis subdivisa. Partitionis prime capitula .v.: primum de invencione astrologie, secundum de siderei motus effectu, tertium de effectus qualitate, quartum de confirmatione astrologie, quintum de utilitate astrologie.

4. Two polemical treatises against Mohammedanism: 'De generatione Mahumet et nutritura eius quam transtulit Hermannus Sclavus scolasticus subtilis ingeniosus apud Legionem Hispanie civitatem'; 'Doctrina Mahumet que apud Saracenos magne auctoritatis est ab eodem Hermanno translata cum esset peritissimus utriusque lingue latine scilicet et arabice.' Bodleian, MS. Selden supra 31, ff. 16-32; Cambridge, Corpus Christi College, MS. 335, f. 57. Printed in Bibliander's edition of the Latin Koran (Basel, 1543), i. 189-212. Cf. Steinschneider, *Polemische und apologetische Literatur in arabischer Sprache* (Leipzig, 1877), pp. 227-234; id., *E. U.*, no. 51, where the *Chronica mendosa Saracenorum* should, on the authority of the MSS. just cited and others, be transferred to Robertus Ketenensis. These versions were doubtless prepared in conjunction with the Latin translation of the Koran for which Peter the Venerable, abbot of Cluny, engaged the services of Robertus Ketenensis and Hermann in 1141 and which was completed, with an accompanying letter in Robert's name, in 1143. See Migne, *Patrologia*, clxxxix. 650-674, 1073-76; Steinschneider, *E. U.*, no. 102.

5. Translation of Ptolemy's *Planisphere*, completed at Toulouse 1 June 1143 and dedicated to Thierry of Chartres. This version, of which nine MSS. and three early editions are known, is based on the Arabic text of Maslama and is the only medium through which Ptolemy's treatise has come down to us. Critical edition by Heiberg, *Ptolomaei opera astronomica minora* (Leipzig, 1907), pp. xii f., clxxx-clxxxix, 225-259; the preface is on pp. clxxxiii-vi. Formerly attributed to Hermann's pupil, Rudolf of Bruges, this has been restored to Hermann by Clerval, *Les écoles de Chartres*, p. 190; Steinschneider, *H. U.*, pp. 534, 569; and especially Björnbo, in *B. M.*, iv. 130-132 (1903). See below, n. 68. The identification of the Tolosa of the MSS. with Toulouse, rather than with the unimportant Tolosa proposed by Steinschneider and Björnbo, is strengthened by the fact that the *De essentiis* was written in the same year at Béziers.

6. *De essentiis*, a philosophical treatise discussed below. Three MSS. are known: one of the twelfth century (N) in the Biblioteca Nazionale at Naples, MS. C. viii. 50, ff. 58–80; one of the fifteenth century (C) in Corpus Christi College, Oxford, MS. 243, ff. 91–115 v; and a third (L), incomplete at beginning and end, in Cotton MS. Titus D. iv, ff. 75–138 v, of the British Museum (saec. xiv), attributed by a modern hand to Adelard of Bath.¹⁷ Planned, but evidently not completed, when the preface to the *Planisphere* was written, 1 June 1143 (Heiberg, p. clxxxv, l. 10); finished at Béziers later in the same year:

De essenciis Hermanni Secundi liber explicit anno domini millesimo centesimo quadragesimo tercio Byterri (MS. N Biteris) perfectus.

It was dedicated to Robert de Ketene, as appears from the following preface:¹⁸

Athlantidum his diebus me crebro murmure concitum gravis et insuper agit admiracio. Quisnam casus¹⁹ queve novitas innotum te hactenus nunc demum tibi ipsi subduxerit, ut relicto videlicet altero te a communi munere omnis vite nostre nova qualibet occasione²⁰ secesseris? An quemadmodum Hercule substituto Athlas terrena rigavit, tu quoque²¹ similiter tocius muneris onere²² mihi relicto quasi respirandum tibi interim censueris,²³ fortasse quia securus secretorum ocliis vacas¹⁹ dum ego publicis gymnasiis expositus insidiosos collectantium impetus sustineam? Queruntur dee pariter iniuriarum agentes meque tanquam pignore obligato collegam impacienter requirunt. Excuso, responsa differo, cupiens potius redditum defendere quam reddendum excusare. Nunc quoniam ipsa divina manus te voto meo reddidit, presentiam dearum ne dubites. Nec enim valde metuo quidquid cause fuerit dum te ipsum habeant, nisi forte malis me tanquam advocatum premittere quam ipse excusandus prodire. Consulte agendum censes, optime Rodberte, eamque mihi semper apud te gratiam sentio, seu quod prudenti animo cuncta circumspicis et provides seu quod individua nobis vita mens eadem atque omnino una anima. Ego itaque si recte memini causam ordine exponam. Meministi, opinor, dum nos ex aditis nostris in publicam Minerve pompam prodeuntes circumflua multitudo inhianter miraretur, non tanti personas pensans quantum cultus et ornatus spectans quos ex intimis Arabum thesauris diutine nobis vigilie laborque gravissimus acquisierat, subiit me gravis admodum pietas super his qui hec forinseca tanti habebant, quanti pensarent si interulas ipsas contueri liceret. Que cum nobis nocte iam cubili receptis me minime sineret valde ex adverso obstante Numenii metu criminis, ecce cuncta somno tenente desuper adveniens²⁴ altissima dea ver-

¹⁷ Under whom it is discussed, with some hesitation, by Thorndike, ii. 41–43.

¹⁸ Robert is also mentioned in the body of the work: see below, pp. 60 f.

¹⁹ Om. C.

²⁰ N, *honore*.

²¹ C, *actione*.

²² N, *consueris*.

²³ N, *luque o*.

²⁴ N, *advenientis*.

ticem meum dextra tetigit, cuius visione tanquam subito irradiante sole cum primum vehementer attonitus deinde paulatim assuefierem, Expergisce, inquit, et respice. Quam cum ²⁵ cognovissem provolutus pedibus dive, Innue, inquam, o numinum omnium regina, quicquid alumpno possibile videas. Surge, inquit, et sequere me. Cui cum nisi previo te nichil mihi licere pretenderem, illa quidem, Unum, inquit, hominem mihi ex utroque vestri factum ab initio putavi, nec putes vel sine illo ²⁶ munus hoc institutum cum nichil inter vos divisum vel sine suprema illius manu tibi possibile quem ipsa rerum omnium et actuum auctorem tibi prestitui. Quippe in quo mihi ²⁷ complacuit quem ipsa mihi inter universas delitias meas archane conscientie delectum singulari cura summoque studio educavi demumque nec diffiteor certe nequaquam ²⁸ repugnantem livida furia tocius viris et consilii mei privilegio dato et tibi universe familie mee certissimum ducem presignavi. Et verum est, inquam. Impera, obtempero. Evolat igitur in summum maiestatis sue solium, quo ²⁹ cum in angustissimo receptaculo consedisset, preposita ³⁰ in medio universa substantie sue materia pariter et huiusmodi instrumentis appositis, ³¹ primo loco calculis et radio deinde equilibri dipondio postremo lucifera quadam lampade cuncta penetrante, Hec, inquit, suscipe, hoc muneris iniungo nec particulatim, ut hi qui miseros auditorum animos vario diripientes tante tibi pietatis causa sunt, datumque larga manu distribue nichil dubitans; opes enim nostre largitate crescent nec ³² indigno animo ullo modo possibles. Suscepi tandem et ecce munus ipsum ³³ offero rude quidem ac tuo ipsius antequam in publicum prodeat examine castigandum, quod ubi perspexeris non me dearum ministerio defuisse cognoscas.

At hoc unum opinor, mi anime, quod non solum excusationi verum maxime ³⁴ approbationi sufficiat quod tam necessaria de causa tamque honesta occasione institutum est. ³⁵ Magnum quippe nec a primo seculo de quoquam mortalium auditum. ³⁶ Fac ergo ne differas atque ab ea potissimum materia exorsus sacre institutionis legem proseguere, ego, ut equi cognitoris est, orationis seriem attente et cum summa benivolentia amplectar.

7. *Liber ymbrium quem edidit Hermannus.* Clare College, Cambridge, MS. 15, f. 1-2 (cf. James, *Catalogue*, p. 29); Dijon, MS. 1045, f. 187; Vienna, MS. 2436, f. 134 v; anonymous, in Corpus Christi College, Oxford, MS. 233, f. 122; St. Mark's, Cl. xi, 107, f. 53 (Valentinelli, iv. 285); MS. Boncompagni 4, f. 63 (Narducci, *Catalogo*, p. 5). Inc. 'Cum multa et varia de imbrum . . .' The various treatises on meteorological predictions current under this and similar titles have

²⁵ N, *quantum*.

²⁶ N, *ullo*.

²⁷ C, *pristinum. Quippe in quo nichil*.

²⁸ N, *nec quicquam*. ²⁹ N, *qua*.

³⁰ C, *prepositus*.

³¹ N, *quantum*. ³² C, *prepositis*.

³³ N, *nunc*.

³⁴ C om.

³⁵ C, *etiam*.

³⁶ C, *necessaria opinione. Magnum*.

³⁷ N, *auditur*. C then has *Fac igitur*. In this paragraph the speaker is obviously Robert.

not yet been clearly separated; see Steinschneider, *E. U.*, nos. 36, 51, 54, 68 p 4; infra, Chapter IV, n. 41.

8. *Commentary on Euclid.* In the *Biblionomia* of Richard of Fournival³⁷ we find at the head of the mathematical section, 'Euclidis geometria arithmetica et stereometria ex commentario Hermanni secundi.' Birkenmajer³⁸ has shown reasons for identifying this MS., in part, with MS. LVI. 48 of the old catalogue of the Sorbonne, now MS. Lat. 16646 of the Bibliothèque Nationale.³⁹ This consists of the first twelve books of Euclid's *Geometry*, in a Latin version different both from that of Adelard of Bath and from that ascribed by Björnbo to Gerard of Cremona.⁴⁰ Its abbreviated character indicates closer affinities with that of Adelard. It begins:

Septem sunt omnis discipline fundamenta in quibus omnium rerum ad mathematice studia pertinentium firma essentie conceptio certusque veritatis intellectus in quadam quasi materia et causa fundata existunt. Sunt autem hec: Preceptum, exemplum, alteratio, collatio, divisio, argumentum, et finis. . . .

It would be interesting to have the whole of this version, and still more interesting if Hermann's preface could be recovered. The appearance of *essentia* here and in the text suggests the preface to the *Planisphere* and still more the *De essentiis*.

9. Arithmetical works. Other mathematical treatises appear in Richard's *Biblionomia*: 'Item liber de invenienda radice, et alius Hermanni secundi de opere numeri et operis materia.'⁴¹ The MS. has not been identified, nor have other copies been found.

10. *Liber de circulis.* In a passage in his *Planisphere* Hermann says (Heiberg, p. clxxxvii): 'Nos discutiendi veri in libro nostro de circulis

³⁷ Delisle, *Cabinet des MSS.*, ii, 526, no. 37.

³⁸ *Biblioteka Ryszarda de Fournival*, in *Rozprawy* of the Cracow Academy, lx, no. 4, pp. 49-52 (1922); cf. *Isis*, v, 215.

³⁹ Delisle, *Cabinet*, iii, 68, no. 48; 108 folios, 13th century.

⁴⁰ *B. M.*, vi. 242-248 (1905). In the parallel passages here cited MS. 16646 agrees in 2, 1 more nearly with Gerard, in 5, 1, and 10, 1, more nearly with Adelard, but in no instance exactly. It has a few Arabic words, e. g., 'alalem' = vexillum (2, 1, f. 13 v); 'mut kefia, id est mutue . . . anint ale chelkatu wa tahtit, id est in elevatione et lineatione' (6, 19, f. 39 v). At the end of Book ix we read (f. 64):

'Perfectus siquidem numerus cunctis partibus suis equalis individua natus origine eadem proportionem compactus nichil extraneum assumens nichil sui relinquens gemina proprie essentie plenitudine integer ad omnem rerum perfectionem aptissimus est. W.'a delitah^aine aradene enne beienne W.' hed horatu.'

⁴¹ Delisle, *Cabinet*, ii, 526, no. 45; identified by Birkenmajer with Sorbonne LVI. 32 (*ibid.*, iii, 68).

rationem damus.' This treatise, which has not been identified, would seem distinct from his versions of Euclid and Theodosius.

11 (?). The *Spherica* of Theodosius. Two Latin versions seem to have been current in the Middle Ages, and are ascribed respectively to Plato of Tivoli and Gerard of Cremona.⁴² It appears, however, that Hermann and Robert had something to do with this treatise, for Hermann cites it in his *De essentiis*,⁴³ while Robert speaks of the *Cosmometria* of Theodosius as one of the treatises on which he hopes to work.⁴⁴ If either of them produced a Latin version, it has not yet been identified.

12 (?). MS. Dijon 1045, ff. 148-172 v, contains "Hermannus de oculis," beginning, 'Astronomie judiciorum omnium bipertita est via'⁴⁵

The *Astronomia* and *Astrologia* cited in the *De essentiis*⁴⁶ may refer merely to the translations of al-Khwarizmi and Albumasar.

Two other works have been ascribed to Hermann which require some consideration:

a. *On the astrolabe*. The name of Hermann is associated with three treatises on this subject preserved in numerous MSS.⁴⁷ and printed by Pez, *Thesaurus*, iii, 2, pp. 94-139, whence they are reprinted by Migne, ccli. 379-412. The second of these (Migne, coll. 389-404) has been separated from the others by Bubnov and ascribed conjecturally to Gerbert. The third (Migne, coll. 405-412) is probably by Hermann,

⁴² Boncompagni, *Platone*, pp. 251 ff.; Steinschneider, *E. U.*, nos. 46 (39), 98 a; Björnbo, in *B. M.*, iii. 67, xii. 210; supra, Chapter II, n. 58.

⁴³ 'Sic enim et Theodosius in Spherica: Super hunc, inquit, movetur totum, ipse vero immotus. Quo facto educit ex eodem centro in utramque partem lineam rectam usque in intrinsecam planiciem spere acutis hinc inde angulis ut secundum Eratostenem Ptolomeus describit ad quadrantem ferme recti anguli': MS. C, f. 97 v; MS. N, f. 63 v; MS. L, f. 88.

⁴⁴ *Infra*, p. 121.

⁴⁵ In MS. Avignon 1022, f. 209, the 'Centiloquium Ptolomei cum expositione Her[emani]' is evidently an emendation for 'Her[metis].'

⁴⁶ MS. C, f. 100: 'Tum fere circa centrum a, ut in astronomia firmavimus, describetur epiciclus Veneris circulus,' where *firmavimus* may mean merely that he has verified the statement. F. 108 v: 'Quod quale sit de sole in aeris temperie de luna in aquarum motu in astrologia plane exposuimus.' F. 114: 'Quippe cum generales quidem diversitates vulgares scribant girographi, speciales vero nos ipsi in astrologis satis exposuimus.'

⁴⁷ For the MSS. of the several treatises, see Bubnov, *Opera Gerberti*, pp. 109-112.

though it bears no name.⁴⁸ The first (Migne, coll. 381-390) is addressed: 'Hermannus Christi pauperum peripsima et philosophie tironum asello, immo limace, tardior assecla, B. suo jugem in Domino salutem.' No date or other indication of authorship is given in the text, so that the treatise has been claimed both for Hermann Contractus, the lame monk of Reichenau (1013-1054),⁴⁹ and for Hermann of Carinthia. Both were interested in astronomy, and no copy has been found clearly anterior to the time of Hermann of Carinthia.⁵⁰ In his favor⁵¹ have been argued, not only the silence of the biographer of the Reichenau monk, but also the numerous Arabic terms which appear in the treatise, words which would be familiar to him and quite unfamiliar to a German monk of the eleventh century, cut off from travel by his infirmity. If we read in the preface 'Tyronum' with one MS. (Mazarine 3642, f. 55) or 'Tyronum' with certain others (Vatican, Ott. lat. 309, f. 152; B. N., Lat. 16208, f. 84; Avranches, 235; British Museum, Royal 15 B. ix, f. 51; Caius College, 413, f. 9), the B. or Ber.⁵² of the dedication becomes Bernard of Tours, with which school Hermann is ranged by his preface to the *Planisphere*, addressed to Thierry of Tours and Chartres.

Tempting as is the identification, the temptation must, I believe, be resisted. The style of the preface is quite foreign to Hermann of Carinthia, whereas its extreme monastic humility reappears in a tract on lunar months ('H. pauperum Christi abortivum vile') in which the references to Bede and Notker of St. Gall plainly indicate Hermannus Contractus.⁵³ We now know from Bubnov that Arabic words in conjunction with the astrolabe were current by the eleventh century,⁵⁴ so

⁴⁸ The main reason for the identification is (Cantor, i. 886 f.) the coincidence of ch. 3 with a letter addressed to Hermann by Meinzo, *scholasticus* of Constance: *Neues Archiv*, v. 202-206.

⁴⁹ On Hermannus Contractus, see particularly Bubnov, pp. 109-114, 124-126; Wattenbach, *Deutschlands Geschichtsquellen im Mittelalter*,⁶ ii. 41-47; Cantor, i. 885-889; and now Manitius, *Lateinische Litteratur*, ii. 756-777.

⁵⁰ To any one familiar with the difficulty in distinguishing MSS. of this period it is not surprising that MS. Royal 15 B. ix, dated 'saec. xi' by Bubnov, should be placed at the end of saec. xii by Warner and Gilson's *Catalogue*.

⁵¹ This ascription is favored by Clerval, *Les écoles de Chartres*, pp. 169, 190, 239; Langlois, in *B. E. C.*, liv. 248-250; and B. Lefebvre, *Notes d'histoire des mathématiques* (Louvain, 1920), p. 146.

⁵² MS. Ott. lat. 309, f. 152, has 'Ber.' MS. Selden supra 25 of the Bodleian has 'Be.' MS. Arundel 377, f. 35 v, has 'B'.

⁵³ Bubnov, p. lxx; ed. in G. Meier, *Die sieben freien Künste* (Einsiedeln, 1887), ii. 34-36 (Manitius, ii. 767).

⁵⁴ *Supra*, Chapter I, nn. 20, 21; Thorndike, ch. 30.

that a Latin work containing them might then have reached Reichenau. Moreover a gloss in the Bodleian (MS. Digby 174, f. 210 v; Macray, p. 186; Bubnov, p. 113) states that Hermann wrote the tract to supplement Gerbert at the request of a certain Berengarius. In that case it would fall in line with the Gerbertian tradition, which Hermann of Reichenau, in the generation succeeding Gerbert, upholds with his *Abacus* and *Rithmomachia*, as well as with his *Compotus* and *Prognostica*.⁵⁵ *Eximius doctor*, his *Astrolabe* is found in more than thirty MSS.,⁵⁶ and he is even portrayed, astrolabe in hand, in a position of equal honor with Euclid.⁵⁷

b. Translation of Ptolemy's *Almagest*. The Louvain MS. of the *Astrolabe* has at the head of the treatise, in a hand of the thirteenth century, the following note:⁵⁸ 'Hermannus iste astrologus fuit natus de Karinthia, non Contractus de Suevia, et transtulit Almag.' This is confirmed by one of the four MSS. of the version of the *Almagest* made from the Greek in Sicily,⁵⁹ MS. Vat. Pal. 1371, where we read in a hand of the fifteenth century: 'Translatus in urbe Panormi tempore regis Rogerii per Hermannum de greco in latinum.' Like the author of the *Astrolabe* and Adelard of Bath, the author of the preface to this work calls himself *philosophie tardus assecla* and implies that he has written other things.⁶⁰

It does not, however, seem possible to reconcile this version of the *Almagest* with the known facts of Hermann's career. The Sicilian translator tells us that he was pursuing the study of medicine at Salerno when he heard that the copy of the *Almagest* had been brought from Constantinople to Sicily by Aristippus, an envoy of the Sicilian king, whereupon he sought out Aristippus, and after long study of the advanced works of Euclid, his mind, *scientie siderum experts*, was brought to the point of turning Ptolemy's work into Latin. Now obviously Hermann, who in 1143 translated the *Planisphere* and wrote

⁵⁵ Bubnov, pp. cix f. The *Compotus* is also in Arundel MS. 356, f. 28.

⁵⁶ To the twenty-six cited by Bubnov, *Opera Gerberti*, pp. 109-112, should be added MS. Bodley 625 (Bernard, 2180); MS. 413 (630) of Caius College; MS. Vat. Ott. lat. 309, f. 152; MS. Chigi, F. iv. 48; and the MSS. in Manitius, ii. 765.

⁵⁷ Ashmolean MS. 304, f. 2 v. The *Experimentarius* which follows does not, however, indicate his connection with Bernard of Chartres and Tours (Langlois, in *B. E. C.*, liv. 248-250), but is subsequent to 1164. See Chapter VII, *infra*.

⁵⁸ See the facsimile of this page in Reusens, *Éléments de paléographie* (Louvain, 1899), p. 236. The MS., no. 217, formerly no. 51, is attributed by Bubnov (p. xxxix) to the twelfth century.

⁵⁹ See below, Chapter IX.

⁶⁰ See the preface in full, *infra*, Chapter IX, end.

the *De essentiis*, could not then speak of himself as ignorant of astronomy, and there was no such royal embassy to Constantinople before the negotiations of 1143-44. Moreover, even if we could assume that the MS. arrived earlier, we cannot place such a translation before 1143. In the preface to the *Planisphere* Hermann says: 'Quorum almagesti quidem Albeteni commodissime restringit,' so that he evidently then knew the *Almagest* only in the compend of al-Battani, and it is in the light of this statement that we must regard the citations of the *Almagest* in the *De essentiis*.⁶¹ These all refer to a single portion of the *Almagest* (5, 16-18) in connection with the relative size of earth and sun and the parallaxes of the moon at Ptolemy's four terms, and there is nothing in them which involves a direct use of that treatise, whose contents were then known through various Arabic intermediaries. Moreover, neither here nor elsewhere does Hermann show a knowledge of Greek, and the style of the Sicilian preface is not his. Its author apparently wrote after 1158.

Very likely the attribution of the version of the *Almagest* to Hermann of Carinthia arose simply out of a confusion with the *Planisphere*. It is at the same time entirely possible that the author of the Sicilian translation should have been named Hermann.

For Hermann's biography, the evidence accordingly consists of these titles and prefaces to his works, the preface of Robert of Chester to al-Kindi, to be printed later,⁶² and the letter of Peter the Venerable.

A native of Carinthia⁶³ and, if we may trust the names generally

⁶¹ MS. C., f. 100: 'Quemadmodum in Almagesti probamus, in primo quidem termino lxiiii, in secundo lix, in tercio xliiii, in quarto xxxix, quarum singule equales semidiametro globi terreni.' F. 100 v: 'Quemadmodum in Almagesti geometrica demonstratio constituit solem terra centies et septuagies fere maiorem.' F. 101: 'Primum quidem in Almagesti ex diversitate videndi lunam quaterna eius distantia per quatuor terminos reperitur.' Cf. f. 101 v. 'Sortiatur secundum diligentissimam Ptolomei observationem puncta tantum xxxiii de diametro circuli per polos circuli lunaris ipsiusque globi centrum transeuntis, diametro (LN, diametros) vero umbre nisi (LN, ubi) minima partem unam puncta xxxiii de cxx partibus eiusdem diametri.'

⁶² Chapter VI.

⁶³ In the version of Albumasar (MS. Naples C. viii. 50, f. 38 v), he says: 'Istrie .iii., maritima et montana, in medio patria nostra Kaunthia.' So the Louvain MS. cited above under *b* has 'natus de Karinthia'; cf. MS. Dijon 1045, ff. 187, 191: 'de Kanto'? He is called 'Sclavus' in the heading of one of the anti-Mohammedan tracts. The name Dalmatian is twice applied to him by Peter the Venerable (Migne, clxxxix, coll. 650, 671).

applied to him, of Slavic descent, Hermann early came under the teaching of Thierry of Chartres, whether at Chartres or Paris we cannot say; and it may well have been the influence of this powerful personality, fundamentally Platonist but quick to assimilate the new Aristotle and whatever of new knowledge came its way, that turned Hermann toward the Arabic sources of philosophical and scientific learning.⁶⁴ How early Hermann reached Spain is not known, but by 29 September 1138 he was already sufficiently familiar with Arabic to produce his translation of Zael, and in 1141 he was still engaged in astrological studies when Peter the Venerable found him and his companion Robert in the region of the Ebro, "both skilled in the two languages." To these years should doubtless be assigned the translations of al-Khwarizmi and Albumasar (1140), while the *Planisphere* and the *De essentiis* were completed by 1143. In or about 1142 he was in Leon, as we learn from the tract against the Saracens. By 1 June 1143 he is at Toulouse, and later in the same year at Béziers. Doubtless he also visited Toledo, which he uses for geographical illustration,⁶⁵ but we know nothing of his relations with the school of Arabic studies which flourished there, nor can we follow him or his writings subsequently to the *De essentiis*.

Of the literary partnership and close friendship with Robertus Ketenensis there is, however, abundant evidence. Peter the Venerable found them together in 1141 and engaged them in a joint labor of translation. Hermann receives the dedication of Robert's translation of the *Iudicia* of al-Kindi;⁶⁶ to Robert, *unicus atque illustris socius studiorum omnium, specialis atque inseparabilis comes rerumque et actuum per omnia consors unice*, Hermann dedicates the version of Albumasar and the *De essentiis*. It appears from the preface of the last-named work that their studies in the inner treasures of Arabic learning were at first carried on in secret

⁶⁴ Hermann addressed Thierry in the preface to the *Planisphere* as a second Plato and 'Latini studii patrem.' On Thierry see Hauréau, in *Mémoires de l'Académie des Inscriptions*, xxxi. 2, pp. 77-104; Clerval, *L'enseignement des arts libéraux d'après l'Heptateuchon de Thierry de Chartres* (Paris, 1889); id., *Les écoles de Chartres*, pp. 169-172, 188 ff.; Hofmeister, "Studien zu Otto von Freising," in *Neues Archiv*, xxvii. 135 (1912); Poole, in *E. H. R.*, xxv. 338 f. (1920).

⁶⁵ *Infra*, n. 203.

⁶⁶ On Robert see Chapter VI, *infra*.

and only brought before the world after long vigils and severe labor. It also appears that Robert had recently withdrawn for a time from the common task to a life of quiet leisure, perhaps on the occasion of his appointment as archdeacon of Pamplona, while Hermann kept up the struggle in *publicis gimnasis* and by his teaching doubtless earned the title of *scolasticus* which is given him by Peter the Venerable.⁶⁷ Any list of Hermann's writings must take account of Robert's collaboration, and *vice versa*.

No disciple of Hermann's is known save Rudolf of Bruges, whom we know only from the description of an astronomical instrument of Maslama which as *Hermani secundi discipulus* he dedicates to John of Seville:⁶⁸

Cum celestium sperarum diversam positionem stellarum diversos ortus diversosque occasus mundo inferiori ministrare manifestum sit huiusque varietatis descriptio ut in plano representetur sit possibile, prout Ptholomeo eiusque sequaci Mezlem qui dictus est Aloukakechita ⁶⁹ visum est, pro posse suo huius instrumenti formulam dilectissimo suo Iohanni David Rodulfus Brugensis Hermani secundi discipulus describit.

Primum igitur huius instrumenti est postica . . . formulam tenaci memorie commendet. Explicit.⁷⁰

As the *De essentiis* is the only independent work of Hermann which has so far been identified, we must depend mainly upon it for light on his philosophic and scientific ideas. It belongs, as we have seen, to 1143, when he has already translated Zael and Albumasar and has just completed his version of the *Planisphere*, as well as a *primus liber* on astronomical topics which may be al-Khwarizmi. Its subject is the five essences — cause, motion, place, time, *habitus* — which have a permanent, unchanged existence. There is no connection apparent with the much briefer *De quinque essentiis* of al-Kindi, later translated into Latin by

⁶⁷ Migne, clxxxix. 650. The word in the title of the *De generatione Mahumet* (supra, no. 4) may be copied from Peter.

⁶⁸ Bubnov, *Opera Gerberti*, pp. 114 f.; Steinschneider, *E. U.*, no. 104, where MS. Naples C. viii. 50 should be added to the MSS. By confusion with this treatise Hermann's translation of the *Planisphere* was formerly attributed to Rudolf; Steinschneider's conjecture of Hermann was confirmed by Björnbo, *B. M.*, iv. 130-133, and by Heiberg, preface to *Planisphere*, p. clxxxvii. Cf. Jourdain, pp. 100, 104; Bosmanns, in *Biographie Nationale de Belgique*.

⁶⁹ Maslama's name was ben Ahmed el-Magriti Abul-Quasim: Suter, no. 176.

⁷⁰ Naples, MS. C. viii. 50, f. 80.

Gerard of Cremona, whose essences do not coincide and are more clearly Aristotelian, namely, *hyle, forma, motus, locus, tempus*.⁷¹ Its approach may be seen from the opening pages, where we find a curious mixture of the Platonism of Chartres, the Aristotelian physics, and the Neo-Platonism of Hermes Trismegistus:

Esse quidem ea dicimus que simplici substantia eademque materia ⁷² immota nichil alienum nichil alterum unquam paciuntur. Diversum quippe in motu illa que ⁷³ in eodem semper sunt nature sue statu prorsus ignorant. Ea vero sunt que in subiectis sibi rebus mobilibus consistencia subiecti quidem inconstancia quodammodo agitantur, nullam tamen proprie et naturalis constancie sue iniuriam paciencia. Nec enim est simpliciter quod est et non est, proprie vero ea que ⁷⁴ semper sunt. Hec igitur cum huiusmodi sint proprio nomine essencie nuncupantur, que cum per ⁷⁵ species quidem innumera ⁷⁶ sint, quinque principaliter ⁷⁷ generibus comprehendi posse ⁷⁸ videntur. Sunt autem hec: causa, motus, locus, tempus,⁷⁹ habitudo. Hec ⁸⁰ etenim huiusmodi sunt plane ut proprie nimirum essencie dicantur nec extra hec aliquid quod eo nomine recte designari queat. Quippe que in substantia sua perfecta naturaque absoluta ⁸¹ genituram quidem omnem ⁸² ad esse conducunt, ut nec sine horum aliquo ulla constet⁷⁹ geniture integritas nec preter hoc extraneum aliquod necessarium sit adminiculum, unde necesse sit ipsa in se eiusdem esse nature perfecteque integritatis sine ulla alteritatis contagione, cum omnis diversitatis inter inequalitatis et dissimilitudinis species radix sint et origo nec ex imperfectis prorsus ulla sit perfectionis absolutio. Tria sunt enim,⁸³ ut philosophis placet, omnis geniture principia. Primum ⁸⁴ est causa efficiens; secundum est id ex quo aliquid fit; tertium in quo totidemque adminicula ad omnem rerum effectum usu ⁸⁵ quodam ⁸⁶ communi quadam ratione cuncta continente. Atque id quod in quo vel de quo fit, quoniam tanquam matris patientis vice supervenienti⁸⁷ virtuti ad omnes motus patet, recte rerum materia nominatur, forma vero id ex quo, quoniam informem illam ⁸⁸ necessitatem agentis virtutis motibus in varios effingit eventus. Sic enim apud Hermetem Persam, Forma quidem ornatus est materie, materia

⁷¹ *Die philosophischen Abhandlungen des Ja'qub ben Ishaq al-Kindi*, ed. Nagy (*Beiträge*, ii, no. 5, 1897).

⁷² N, *natura*. The extracts printed from the *De essentiis* reproduce the text of C except where one of the other MSS. seems to have preserved the best reading, but I must leave the emendation of obscure passages to philosophical experts, with such aid as they may get from the variants.

⁷³ C, *immotum*. N, *quam illa*.

⁷⁴ Om. N.

⁷⁵ Om. N.

⁷⁶ N, *innumera quidem*.

⁷⁷ C, *specialiter*.

⁷⁸ Om. N.

⁷⁹ Om. C.

⁸⁰ N, *Nec*.

⁸¹ C, *quia dissoluta*.

⁸² C, *omne*.

⁸³ Om. N.

⁸⁴ N, *prima*.

⁸⁵ N, *uno*.

⁸⁶ Om. N.

⁸⁷ C, *superveniente*.

⁸⁸ N, *illam informem*.

vero forme necessitas. In omni siquidem rerum constructione sustinens in primis est necessarium, postremus est operis eventus et perfectio. Dat quidem materia massam ipsam informem et inordinatam que nisi⁸⁹ presto sit nec habet ubi assit forma, que cum supervenit propositum ordinata quadam explanatione absolvit. Horum igitur principalis motus rerum omnium est generatio. Est enim is motus moderata⁹⁰ quedam forme cum materia coeuntis habitudo, ita quidem ut in ipsa movendi ratione vis et causa movens recte demum cognoscatur,⁹¹ in qua, quoniam omnis motus ratio constat ut ea que proposita sunt ex integro constituentur, tractatus ordo abhinc instituendus videtur. Sic enim, opinor, decet ut quid de essentiis instituitur ab ea si qua est que⁹² cunctis aliis origo procedat et in ea tamquam rursus in girum expleto cursu tandem terminetur.

Constat plane nichil genitum sine causa genitrice naturaue vetitum ne quid sibi ipsi geniture sit origo seque ipsum efficiat. Sic igitur in omni generatione auctorem generantem causamque moventem intelligi necesse est, prout omne posterius id infert quod prius est. Sic contentum continens species⁹³ genus individuum genus et speciem, unum autem plane omnium principium intelligi necesse est. Duobus namque prius est unum, nisi enim precedat unum nichil est quod duo constituat.⁹⁴ Atque ubi duo⁹⁵ unum est necessario, non vero convertitur ut si unum est et duo fore necesse sit. Duo itaque principia qui vel existimari possint dum utrumque prius esse laborans neutri principalem sedem relinqueret. Nisi enim alterutrum altero prius esset, nequaquam primum omnium existeret, dum vel unum complendo omnium numero deesset. Quemadmodum igitur omnis geniture effectus principaliter bipertitus⁹⁶ est, prout loco suo⁹⁷ explicabitur, sic causa gignens et efficiens primo loco bimembri differentia dividitur, in primam scilicet et secundariam. Prima quidem una et simplex que ipsa quippe immota cunctis aliis causa movendi⁹⁸ est et ratio stabilisque manens dat cuncta moveri. Ita siquidem habet ratio ut omne motum id quod immotum est antiquitate precedat omni quoque genito causa genitrix antiquior. Sic igitur quod cuncta alia movet id⁹⁹ primam omnium et efficientem esse causam necesse est, quam, ut Thimaeus ait,¹⁰⁰ tam invenire difficile est quam inventam digne profari impossibile.

The author has something to say about the Incarnation and the Trinity, against the Mohammedans,¹⁰¹ quoting certain Arabic words and citing Hermes and Astalius as well as his own translation of Albumasar, but on all these questions he refers to the

⁸⁹ C, *non*.

⁹⁰ N, *his*; C, *motus motus moderata*.

⁹¹ N, *cognoscant*.

⁹² Om. C.

⁹³ N, *speciem*.

⁹⁴ C, *constituunt*.

⁹⁵ N, *duo et*.

⁹⁶ Om. C.

⁹⁷ N, *suo loco*.

⁹⁸ N, *movendi causa*.

⁹⁹ N, *id ad*.

¹⁰⁰ Timaeus, c. 28.

¹⁰¹ Cf. his polemic activity, *supra*, no. 4. He later cites the Koran in one passage: 'Quod et ipse auctor eorum in lege sua fatetur dicens se missum in gladio ad fidem suam ferri virtute et argumento persuadendum.' C, f. 105; N, f. 70 v; L, f. 113.

Fathers for fuller treatment. He then returns to the main theme as follows: ¹⁰²

Deinde videndum utrum ne idem ipse auctor ille universitatis est facta sunt utpote que moventur. Omnis vero motus undecumque inceperit aliquando necesse est, incepisse vero temporis est nec tempus eternum cum et ipsum in motu. Est autem omnis motus aut localis aut alteritatis aut translacionis. Locus quidem extra sensibile non est, consistit enim et ¹⁰³ ipse in subiectis quo res insensibiles Boetius prohibet. Omne vero sensibile compositum, nam quod tangitur ex materia est, quod videtur ex forma, per se quidem nichil huiusmodi prestantibus cum nisi in subiectis non consistunt, ¹⁰⁴ sed licet in communem habitudinem unitis in proprie tamen nature partem familiarius accedentibus. ¹⁰⁵ Alteritas autem in augmento est aut detrimento aut permutacione, quorum priores duos motus a certa semper quantitate incipere necesse est, permutacio vero in ¹⁰⁶ alterutrum semper consequitur. Cum enim ex calido fit frigidum ex alterius detrimento alterius augmentum ¹⁰⁷ procedit, que nullatenus accidunt nisi in compositis. Quidquid enim compositum est sine parcium proporcione stare non posset, dum nullum videlicet interesset medium societatis vinculum, proporcio vero nisi inter maius et minus nulla est. Infert itaque diversitas sedicionem quam quandoque alterius partis incrementum alterius detrimentum consequi necesse est.

Translacionis autem motus nec existimari quidem potest nisi circa ea que fiunt. Amplius: nam hec ¹⁰⁸ ipsa quidem alterius ¹⁰⁹ sumi possunt, ab ipsa videlicet conditoris differentia et eorum que condita dicimus. Conditor etenim siquidem eternus ideoque a seipso est, quidquid in se habet idem ipse est, sic sapientiam bonitatem beatitudinem ut idem ipsa sapientia bonitas beatitudo. In hiis longe aliter. Inest enim mundo pulcritudo rotunditas motus, que cum illi per accidens insunt nec aliquid eorum ipse mundus est. Hec igitur et huiusmodi cum in eis que condita dicimus ex diverso composita videamus, omnis vero compositio actio quam auctorem suum habere necesse est. Si quidem huius modi ab eterno fuisse credantur, fingat qui potest quis ¹¹⁰ hec tam diversa coniunxerit.

Quoniam ergo facta sunt auctoritas ¹¹¹ facti ei necessario relinquitur qui solus preerat, omnis autem operis modus et finis in arbitrio auctoris. Licet igitur ex omnibus concludere quod unus ipse primus et ¹¹² novissimus unus omnipotens unus tocius universitatis auctor, omnis quidem in essencie sue integritate motus extraneus, omnis namque motus eius in opere eius, quemadmodum virtus quidem in auctore semper eadem et componens et resolvens. In subiecto tamen alia compositio alia resolutio nec simul eiusdem. Amplius: semper quidem creator non vero ¹¹³ semper creata, in illo quidem eadem potencia semper eadem semper voluntas creatrix. Circa hec autem

¹⁰² C, f. 92 v; N, f. 59 v; L, f. 75.

¹⁰³ N, *ut*.

¹⁰⁴ N, *consistent*.

¹⁰⁵ N, *accidentibus*.

¹⁰⁶ Om. N.

¹⁰⁷ N, *vel alterius augmento*.

¹⁰⁸ N, *nec*.

¹⁰⁹ C, *alcius*.

¹¹⁰ N, *qui*.

¹¹¹ N, *auctoris*.

¹¹² Om. C.

¹¹³ Om. N.

opposita, nunc scilicet ¹¹⁴ creari nunc ¹¹⁵ minime, legem quippe imponit opifex operi non opus opifici.

Duo sunt igitur cause primordialis omnium motuum genera, creatio et generatio, cetera ¹¹⁶ secundarie ¹¹⁷ ministre obsequentis arbitrio prime. Creatio quidem a primordio principiorum ex nichilo, generatio autem rerum ex antedatis principiis usque nunc, neque enim preerat materia de qua fierent ¹¹⁸ cum solus omnium sit principium nec de seipso quorum tanta ab ipso differentia sed a seipso. Quod enim ex ipso vel de ipso ¹¹⁹ est idem Deus est ideoque non factum a Deo sed genitum vel procedens. Omne vero opus gemina auctoritate constituitur, artificis videlicet et instrumenti, at ¹²⁰ creationi quidem idem extitit artifex et instrumentum. In generatione vero, quoniam secunde dignitatis est, aliud sibi aptavit ¹²¹ artifex ¹²² instrumentum. Quod ipsum et secundariam causam si quis in eodem pariter intelligat, eum recte existimare opinor. Ita quidem ut per ¹²³ se ipsum prima effecerit, secunda vero sicque per ordinem tertia et quarta ministre sue cause secundarie moderacione et instituto suo exequenda commiserit. Hec est igitur bipertita illa divisio cause in primam et secundariam. Prima namque et efficiens causa universitatis est ipse prudentissimus artifex et auctor omnium Deus, secundaria vero instrumentum eius de ipsis eiusdem operibus sed prime sedis prelateque ¹²⁴ auctoritatis. Hec sunt que eius quod de essentiis instituitur integritatem absolvant, si quis recta via nemo quidem ad plenum sed quantum homini fas est assequatur. ¹²⁵ Quippe que in se quidem absoluta rerum omnium effectum constituunt, videtur autem omnino necessarium ut inter incia ipsius tanquam thematis ¹²⁶ fiat ordinata particio, ¹²⁷ quo facile amplectamur animo quid quo loco expectandum sit neque id passim atque lege incerta ¹²⁸ verum ipsa naturali consequencie serie. Cum enim de prima et movente causa quantum locus exigebat expeditum sit, a motu qui proximus ceterisque prior et generalior est consequenter inchoandum videtur ac potissimum ab eo qui primus eorum que ceteris principia sunt, id est forme et materie, postquam de ceterorum habitudine locique ¹²⁹ receptaculo temporisque spacio, ut undique propositis ex quo et in quo ubi et quando qua demum lege quidque fiat, postremo ipsa instrumenti ratio subiuncta in ipso prout institutum est universitatis opifice facto demum reditu consistat.

Hec que dicta sunt hercle sine Deo dici possent nec de eis que restant despero quin quemadmodum ex ordinatione ¹³⁰ tractatus intelligi datur mirandum altissimi numinis munus debita opera exequaris. Illud vero consulte nec sine summa industria factum. ¹³¹ Videtur quidem a vera ¹³² divinitatis fide primordium operis sumis quippe que omnium bonorum incinium ne quemad-

¹¹⁴ N, *nichil*.

¹¹⁵ N, *non*.

¹¹⁶ N, *ceteri*.

¹¹⁷ N, *secundario*.

¹¹⁸ N, *faceret*.

¹¹⁹ *Vel de ipso* om. N.

¹²⁰ C, *a*; N, *ac*.

¹²¹ N, *adaptavit*.

¹²² N, *opifex*. ¹²³ Om. C.

¹²⁴ N, *planteque*.

¹²⁵ C, *assequitur*.

¹²⁶ Here L begins.

¹²⁷ L, *paratio*.

¹²⁸ C, *certa*.

¹²⁹ N, *loci quoque*.

¹³⁰ N, *ordine*.

¹³¹ L, *facere*.

¹³² L, *qui antea*.

modum temerariis hominibus visum est sed plane intelligatur extra veram divinitatis fidem locum¹³³ sapientie nullum esse. Fac ergo quem arreptum tenes ne moreris.¹³⁴

After this paragraph, evidently a dialogue between Hermann and Robert, there begins what in the Naples manuscript is entitled the second book, although no trace of division into books appears elsewhere:

Optimus auctor omnium¹³⁵ Deus summeque beatus nequaquam invidit quin aliquid¹³⁶ sibi gracie sue¹³⁷ tanteque glorie consors efficeret. Scimus enim nichil invitum fecisse cum nulla necessitas cogeret, consors autem eius qui posset esse quicquam mortale quod nunquam desitutum esset. Sane mortale quidem omne id quod non ex integris perfectisque principiis firmissimo demum¹³⁸ nexu vinculisque perpetuis atque indissolubili nodo compactum constaret. Firmus vero societatis nexus neque intus¹³⁹ penitus eadem neque intus¹³⁹ prorsus diversa, primum igitur¹⁴⁰ necessaria fuit huiusmodi fabricae eiusdem diversisque propositio, diversum porro nichil primum. Iecit itaque semina commiscendi potencia virtutisque generative que¹⁴¹ per se quidem eiusdem nature ac substantie individue collata vero adinvicem diverse nec umquam commixtione¹⁴² sui quietem eiusdem essencie admittebat. . . .

The necessity of *actio* and *passio* in generation then comes in. The four elements are mentioned as a subject of dispute among philosophers, then the four modes "to which Aristotle added a fifth," the whole bringing us now into line with the *De generatione et corruptione*. Before long, however, we are back with Albumasar and "the most weighty authority of Hermes."¹⁴³ The disagreements of Plato and Aristotle are emphasized later:¹⁴⁴

Multa quidem veteris prudentie studia, mi Rodberte, in hiis que agimus consumpta nec ulli ad integritatis evidenciam consecuta videmus. Sic Plato proposita generatione primaria tandem ad extremum¹⁴⁵ enisus¹⁴⁶ partem dedit pro toto, Aristoteles vero totum¹⁴⁷ item amplexus extremitates demum sine mediorum contextu terminavit. Michi autem nulla ratione universitatis constructio absoluta videatur si minus sit quod solum in omni compositione compaginis retinaculum est. . . . Recte quidem quale Plato¹⁴⁸ diffinit

¹³³ N, *nullum locum sapientie*.

¹³⁴ N, *ne moreris*. C adds *etc*.

¹³⁵ L, N, *omnium auctor*.

¹³⁶ L, *aliud*.

¹³⁷ Om. C.

¹³⁸ Om. N.

¹³⁹ L, N, *inter*.

¹⁴⁰ L, N, *ergo*.

¹⁴¹ C, *etiam*.

¹⁴² L, *in commixtionem*.

¹⁴³ C, f. 97; N, f. 63; L, f. 87.

¹⁴⁴ C, ff. 102 v, 106; N, ff. 68 v, 71 v;
L, ff. 105 v, 117 v.

¹⁴⁵ *tandem ad extremum* om. C.

¹⁴⁶ *est* inserted by N.

¹⁴⁷ C, *totus*.

¹⁴⁸ Om. C.

Aristotiles describit. Plato quidem in Cadone:¹⁴⁹ Anima est, inquit, incorporea substantia corpus movens. Aristotiles vero in libro de anima sic: Anima est, ait, perfectio corporis naturalis instrumentali potencia agentis.¹⁵⁰ Et alibi: Anima est perfectio corporis agentis et viventis potencia.¹⁵¹

There is a fair amount of astronomical and geometrical illustration, with four astronomical figures,¹⁵² and references to his own treatise on such matters.¹⁵³ The most noteworthy geographical passage is the following, where we find brought together the classical names of geography, Arin, and the North:¹⁵⁴

Triplex est universa dimensio,¹⁵⁵ in longum, latum, et ¹⁵⁶ altum. Quoniam igitur omnis corporis sedes in fundamento suo terra vero totius mundi fundamentum, multo potius mundane prolis ex substantia ¹⁵⁷ collecte sedem terram esse ¹⁵⁸ necesse est. Eius pars quedam a terra in altum crescit, alia vero super terram in altum elevatur totius fomentum hic spiritus terreni vaporis pinguedine crassus,¹⁵⁹ sine quo nulla huius geniture ¹⁶⁰ vita per aliquot horarum spacium possibilis.¹⁶¹ Hic autem vapor, ut per altitudinem Olympi concipit Aristotiles,¹⁶² a terre superficie non plus quam .16. stadiis exaltatur.¹⁶³ Hic ergo terminus videtur in altum omnis nostre habitabilis. Videtur fortasse huius altitudinis mensura sumi ¹⁶⁴ posse vel per ¹⁶⁵ arcum yris que secundum Ipparci ¹⁶⁶ descriptionem ab ipsis ¹⁶⁷ nubibus usque in superficiem¹⁶⁸ terre perveniat. Sed quoniam nec ipsa descriptio constans nec ipsius arcus ad semicirculum habitudo, propterea nos id cuilibet probandum relinquimus.

Latitudo vero terrarum est ab equinoctiali ¹⁶⁹ circulo in alterutrum polum distantia ac nostra ¹⁷⁰ quidem in borealem qui, cum ab eo circulo per .90.¹⁷¹

¹⁴⁹ *De senectute*, c. 21. Chalcidius (c. 226) corresponds more closely to this definition. L. has 'substantia incorporea.'

¹⁵⁰ N, L, *viventis*.

¹⁵¹ *De anima*, 2, 1, 6, 7 (p. 412). So just before this passage he promises to summarize 'quod Aristotiles vix tribus integris libris explicavit.'

¹⁵² N, ff. 66, 67 v, 68 v, 78; L, ff. 98, 101 v, 104.

¹⁵³ Supra, n. 46.

¹⁵⁴ C, f. 112; N, f. 76 v; L, f. 136.

¹⁵⁵ N, *diversio*.

¹⁵⁶ Om. L.

¹⁵⁷ L, *substantie*.

¹⁵⁸ Om. L.

¹⁵⁹ C, *grassus*; N, *cssus*; L, *cursus*.

¹⁶⁰ L, *geniture huius*.

¹⁶¹ L, *spacia possibile*.

¹⁶² L, N, *Aristotiles per altitudinem*.

¹⁶³ On the contrary Aristotle omits Olympus from his list of the highest mountains (*Meteorology*, 1, 13). The usual figures for the highest mountains vary in Greek writers from ten to fifteen stades. See W. Capelle, *Berges- und Wolkenhöhe bei griechischen Physikern*, in Boll's *Στοιχεία*, v (Berlin, 1916), especially pp. 13, 34.

¹⁶⁴ L, *summi*.

¹⁶⁵ C, *superficie*.

¹⁶⁶ Om. L.

¹⁶⁷ C, *equali*, L, *equabili*.

¹⁶⁸ N, *Parci*.

¹⁶⁹ L, *nostram*.

¹⁶⁷ N, *his*.

¹⁷¹ C, 20.

gradus distet, in principio Arietis illic oriri solem in principio Libre occumbere necesse est, secundum quod in primo libro diximus orizontem illic esse ipsum circulum equinoctialem, sicque ab eo polo in austrum perpetuo gelu¹⁷² inhabitabiles fere .30. gradus relinquuntur usque prope montes Ripheos¹⁷³ silvasque Rubeas¹⁷⁴ atque paludes Meotidas.¹⁷⁵ Nec enim longe plus .12. gradibus ultra terminos septimi climatis, unde et Scitie fines ei¹⁷⁶ termino¹⁷⁷ contiguos Scitica lingua Ysland¹⁷⁸ nominat, quod¹⁷⁹ latine sonat terra glacialis. At vero circa equabilem circulum non parum item intollerabili estu intractabile pariter et abinde cum¹⁸⁰ arenis siccitate sterilibus ut Libice et inter quas Nilus occultatur.¹⁸¹ Insulas tamen habitatas sub ipso eodem circulo Tamprobanem,¹⁸² Arin, et .vi.¹⁸³ Fortunatas girographi tradunt satis possibiliter. Duplici namque ratione probat Ptolomeus eas terrarum partes aptissimas habitationi: nec enim, ait, vel estum eis¹⁸⁴ exasperari¹⁸⁵ patitur velox illic solis in latum transitus nec validum admittit frigus haut longinqua ab eo circulo solis remotio. Unde si prosequatur dubitatio cur ergo non pateat transitus vel usque in alteram¹⁸⁶ temperatam, dicimus quia Sagittarius impedit. Unde totius habitabilis nostre latitudo fere .60. graduum relinquitur.

Longitudo vero quanta a principio Indie¹⁸⁷ usque in finem Libie inventa est graduum fere .clxxx. Illinc per oceani insulas sub ipso equinoctiali .15. fere gradibus usque¹⁸⁸ ultra Meroen¹⁸⁹ insulam Niliacam¹⁹⁰ sub Tauro et Leone sitam haut procul a superiori Egypto. Hinc vero per Amphitritus sinus ab Athlante Libico Strixisque influxu¹⁹¹ per littora Gaditana per confinia Thiles prope¹⁹² Temiscirios campos e vicino portibus Caspiis¹⁹³ usque ad Caucason¹⁹⁴ et Ethiopici Gangis¹⁹⁵ effluxus. Sic enim astronomia¹⁹⁶ demonstrat circa meridiem¹⁹⁷ Arin solem simul primis Indie partibus occidere atque ultimis Libie finibus oriri, que ratio utriusque termini populos antipodas adinvicem constituit utpote integra fere terreni orbis diametro interposita.

¹⁷² C, gere.¹⁷³ L, *proprie montes Rumpheos*.¹⁷⁴ N, L, Rebeas. On the *silvae Rubeae* cf. Pliny, *N. H.*, 4, 13, 27.¹⁷⁵ L, *Meoridas*.¹⁸³ N, vi. *insulas*.¹⁷⁶ L, ex.¹⁸⁴ Om. C; L, *eius*.¹⁷⁷ N, terminos.¹⁸⁵ N, *esperari*.¹⁷⁸ N, *Islanil*; L, *Island*.¹⁸⁶ C, *aliam*.¹⁷⁹ Om. C.¹⁸⁷ Om. N.¹⁸⁰ N, in.¹⁸⁸ Om. C N.¹⁸¹ N, L, *occulatur*.¹⁸⁹ L, *Merorem*.¹⁸² C, *Tampropebanen*;¹⁹⁰ N, *oceani magni*.N, *Tamprofanem*;¹⁹¹ L, *inflexu*.L, *Tamprobanem*.

¹⁹² L, *proprie*. On the 'Amphitritus sinus' as the ocean encircling the globe, cf. Grosseteste, *De sphaera*, ed. Baur (*Beiträge*, ix), pp. 24 f. 'Strixis' is puzzling; can it be a deformation of Septa, which appears in many corrupt forms for the Straits of Gibraltar (Nallino, *al-Battani*, p. 18, n. 7)? Themiscyra is unusual in this connection.

¹⁹³ L, *campiis*.¹⁹⁵ N, *Gangisque*.¹⁹⁴ L, *Caucason*.¹⁹⁶ N, *in astronomia*.¹⁹⁷ Om. C.

Cum ergo dimidium per .vi. partem¹⁹⁸ multiplicatum¹⁹⁹ totius duodecimam conficiat, tota demum terreni globi porcio, ut Albeteni visum est, universe nostre habitacioni relicta est.

Here the first paragraph harks back ultimately to Greek meteorology, through channels which require investigation. The two following paragraphs correspond in general to the doctrine of the Arab astronomers, particularly al-Battāni, whom Robert of Chester translated.²⁰⁰ The doctrine of the habitability of the equatorial regions seems to have come into Europe in the twelfth century from Arabic sources.²⁰¹ The land of ice, "called in the Scythian speech Ysland," is evidently as little known to Hermann as Arin or the Blessed Isles to the west. In another instance, however, he seems to make use of his more direct knowledge of the Iberian peninsula to elucidate a point in geography, though he ends with 'Amphitrite' and the terrestrial paradise. The essence of the argument is clear, even without the accompanying diagram. If the distance from Toledo west to the ocean at Lisbon is 4° or eight days' journey, then the remaining 22°²⁰² or forty-four days' journey represents the distance thence to the western prime meridian or one-half the width of the surrounding ocean stream of Amphitrite:²⁰³

Cuius demonstrationi describimus exempli gratia Toleti circulum parallelum ysemerino meridianum in supraposita figura²⁰⁴ secantem ad punctum *y* gradibus fere 40 a puncto *e* versus *c* in punctis quidem a sinistris *q* a dextris *z* transeuntem per primo descriptum orizontem. In quo designamus punctum *o* loco Toleti metropolis Hyspanie gradibus a puncto *y* occidentem versus 62. Tum²⁰⁵ ubi circulus *qyz* secat circulum *nrk* signamus nota²⁰⁶ *i* loco civitatis Ulixispone que sita est qua Tagus a Toletto descendens occidentali oceano influit eadem distantia ab ysemerino, a puncto vero *y* gradibus 66. Cum igitur *o* distet ab *i* gradibus quatuor *i* vero a puncto *z* gradibus²⁰⁷ 22, sitque *oi* linea recto tramite itineris dierum fere viii, procedit spatium inter *i* et *z*

¹⁹⁸ L, *sex partes*.

¹⁹⁹ N, *multiplicant*.

²⁰⁰ See Nallino, *al-Battani*, pp. 15 ff., and the editor's notes.

²⁰¹ For information on these matters I am indebted to my former pupil, Dr. J. K. Wright of the American Geographical Society, who discusses them in his book, *Geographical Lore of the Time of the Crusades*.

²⁰² Why not 24°, since Toledo is 62° west of Arin? On mediaeval reckonings of latitude and longitude, see J. K. Wright, in *Isis*, v. 75-98 (1923).

²⁰³ C, f. 113 v; N, f. 78 v; L breaks off just before this.

²⁰⁴ The figure appears only in N, f. 78; C has a space for its insertion on f. 113

²⁰⁵ N, *Tu*.

²⁰⁶ N, *notam*.

²⁰⁷ Om. N.

dierum 44 que secundum quod ratio tribuit est dimidia latitudo Amphitritis, tota ²⁰⁸ videlicet itineris terrestris equabilis dierum fere 88. Tantum ergo spatii vel etiam aliquanto plus que ratio hucusque transnari prohibuit nondum audivimus nisi forte illa quam ²⁰⁹ exposuimus. In ea tamen parte non modica est opinio eam esse regionem quam paradisum vocant, cuius indicio ²¹⁰ sunt signa tam ab oriente quam ab occidente.

The *De essentiis* concludes thus:²¹¹

Recepto siquidem semente statim ad retinendum accedit virtus Saturnia, retentum digestionem salubri Iupiter nutrit, demum Mars consolidat, post hunc Sol informat, informato Venus reliquias temperate expellit, expulsionem Mercurius moderate obviens necessaria retinet,²¹² postremo Lucina succedens gemina virtute partum maturum absolvit. Que ipsa continuo tenerum fetum suscipiens eo usque tuetur quoad cessante materie nutrimentique lunaris illuvie utpote in corporis augmentum diffusa ac digesta excitato paulatim sensu animeque semitis adaptis Mercurius in rationabilem institutionem succedens usque in Veneream adolescentiam provehat; hinc temperata iam voluptuosa levitate in Phebeam iuventutis plenitudinem conscendit qui usque in Martie virtutis statum provehit, hic virili animo roborato Iovialis auctoritas succedit. Postremo est etas Saturnia nature orbe expleto finem origini continuans, cui quod ab ipso cepit reddito quod ultra ipsum est minime legibus hiis subditum ideoque cognacionis sue rationem superstes per alterutrum Pitagorici bivii tramitem, aut tanquam devium et aberrans usque in posterum nichil descendere, aut naturali circuitu servato ad summi ²¹³ triumphi coronam originalem videlicet patrieque sedis arcem demum conscendere necesse est, qua beati evo sempiterno fruuntur in gloriam regis altissimi cui virtus honor et potestas in infinita secula.

De essentiis Hermanni Secundi liber explicit anno Domini millesimo centesimo quadragésimo tercio Byterri perfectus.²¹⁴

Hermann's sources in the *De essentiis* give an idea of the range of his education. Of the Latins he cites Cicero and Boethius, Pliny, in one instance Seneca, Macrobius, Apuleius, Aratus, Virtruvius, verses of Hesiod in a Latin version;²¹⁵ Augustine and the annals of St. Jerome each appear once. He shows the Platonism of the school of Chartres in his citations of the *Timaeus* and 'Plato

²⁰⁸ N, *totam*.

²¹¹ C, ff. 115-115 v; N, ff. 79 v-80.

²⁰⁹ N, *que*.

²¹² Om. C.

²¹⁰ N, *indicia*.

²¹³ N, *sumam*.

²¹⁴ N has: 'DE ESSENTIIS liber HERMANNI Secundi explicit. ANNO DOMINI. M^o. C^o. xl^o. iii^o. Biternis PERFECTUS.'

²¹⁵ C, f. 108 v; N, f. 73 v; L, f. 124 v: 'Sic enim et Esiodo revelatum ferunt et ab ipso conscriptum hiis versibus in libro de etatibus animalium,

Ter binos deciesque novem superextit in annos '

.....

in Catone,' but he is largely Aristotelian. He seems to know the *Logic* only through Boethius, and the only Aristotelian work cited directly is the *De anima*,²¹⁶ but he is familiar with the subject matter of the *De generatione et corruptione* and the *Meteorology*, if not that of the *Physics*. Euclid he quotes, and the *Spherica* of Theodosius; Ptolemy is cited frequently but not necessarily at first hand; the references to Eratosthenes, Archimedes, and Hipparchus are of course borrowed. Al-Battani, thrice cited, Hermann would know, as he was translated by Robertus Ketenensis. Albumasar, whom Hermann himself translated, is cited most frequently of all. The other astrologers mentioned are Hermes Trismegistus, Apollonius, Messehalla, Druvius, 'Iorma Babilonicus,' and 'Tuz Ionicus.'²¹⁷ The bare references to Galen and Hippocrates are unimportant.

The total impression is rather confusing, a conglomerate rather than a fused whole, but we must remember that Hermann stands at the meeting-point of diverse currents of thought and tradition, where only a distinctly superior mind could achieve consistency. He clearly lacks the originality and experimental habit of Adelard of Bath, but he has mastered a considerable portion of the new mathematics and astronomy, and has a respectable place among the transmitters of the twelfth century. The list of his works is impressive, and it is to be hoped that others may yet be recovered.

²¹⁶ See note 151.

²¹⁷ On Hermann's astrology, see Thorndike, ii. 41-43.

CHAPTER IV

THE TRANSLATIONS OF HUGO SANCTALLENIS¹

IN the history of culture in the Romance countries of mediaeval Europe an important place must be given to the movement which it is becoming common to call the renaissance of the twelfth century. This revival of learning had many aspects, according as we consider it from the point of view of classical literature, of law, of natural science, or of philosophy and theology; but on its philosophical and scientific sides it owed its significance to the influx of a great body of new knowledge, coming in some measure from direct contact with Greek writers in the Norman kingdom of Sicily and elsewhere,² but derived for the most part through the intermediary of Arabic and Jewish sources as these were made accessible in central and northern Spain. Here the chief centre was Toledo, where a large amount of Arabic literature survived the Christian conquest of 1085 and whence in the course of the twelfth and thirteenth centuries an active school of translators spread over western Europe the Latin versions of Aristotle, Ptolemy, Euclid, Galen, Hippocrates, and their Arabic expositors and commentators which constituted the basis of study and teaching in the mediaeval universities. The impulse to this movement may have come in the first instance from Raymond, archbishop of Toledo from 1126 to 1151;³ but it would be a mistake to regard it as confined to Toledo. The Toletan translators were in relations, how close we do not know, with a group of scholars from other lands, including Plato of Tivoli, Robert of Chester, Hermann of Carinthia and his pupil Rudolf of Bruges, who worked, mainly on astronomical subjects, in various cities of northern Spain and, probably, southern France. Plato, who is found in Spain as early as 1134, is con-

¹ Revised from *The Romanic Review*, ii. 1-15 (1911).

² *Infra*, Chapters VIII-X.

³ On the Toletan and other Spanish translators see Chapter I and the works there cited.

nected particularly with Barcelona; Hermann and Robert first appear in 1141 as students of astrology on the banks of the Ebro, and one or both of them can be traced at Segovia, Leon, Toulouse, Béziers, and Pamplona, where Robert became archdeacon. It is the purpose of this chapter to call attention to an active and hitherto unknown centre of such studies at Tarazona, in Aragon, and to examine the work of a contemporary translator, Hugo Sanctallensis, of whom exceedingly little has hitherto been known.

In the course of this movement more than one version of the same work might be made, whether from the Arabic or from the Greek, and it was not always the earliest or the most accurate which secured the widest circulation.⁴ Thus in the case of Ptolemy, his *Planisphere* was translated from the Arabic by Hermann of Carinthia in 1143;⁵ the Latin version of the *Optics*, which has survived the loss of both the Greek and the Arabic texts, was made from the Arabic in Sicily about the middle of the century; while his great work, the *Almagest*, became known at first only through the translated compend of al-Fargani⁶ and passed into general use, not in the first and more faithful version made from the Greek in Sicily about 1160, but in the translation from the Arabic which Gerard of Cremona completed at Toledo in 1175.⁷ On the other hand, Ptolemy's astrological treatise, the *Quadripartitum*, was the first of his works to be translated into Latin, in the version produced by Plato of Tivoli in 1138,⁸ and the abridgment of this, the *Fructus* or *Centiloquium*, which was ascribed to Ptolemy throughout the Middle Ages, was translated somewhat earlier. The Latin rendering of the *Centiloquium* bears in most of the manuscripts the date of 1136, and while it was formerly ascribed to Plato of Tivoli, it is now, on the authority of

⁴ Björnbo, "Die mittelalterlichen lateinischen Uebersetzungen aus dem Griechischen auf dem Gebiete der mathematischen Wissenschaften," in *Archiv für die Geschichte der Naturwissenschaften*, i. 387 (= *Festschrift Moritz Cantor anlässlich seines achtzigsten Geburtstages*, Leipzig, 1909, p. 95), suggests that the first translation made after the revival of the eleventh and twelfth centuries was the one which held the field; but the opposite was true in the case of the *Almagest*, as appears below.

⁵ Supra, Chapter III, no. 5.

⁶ On which see Steinschneider, *H. U.*, p. 554; *E. U.*, no. 68 k; infra, p. 369.

⁷ Infra, Chapters V and IX.

⁸ Steinschneider, *E. U.*, no. 98.

an Erfurt manuscript, generally assigned to John of Seville.⁹ Whether this attribution is correct and how many versions of the *Centiloquium* were made, only a comparison of the numerous copies can determine, but in any event there is extant in the Biblioteca Nazionale at Naples¹⁰ and at Madrid¹¹ a translation prepared by Hugo Sanctallensis for the bishop of Tarazona, as appears from the following preface:

Incipiunt fructus Ptolomei, liber scilicet quem Grecorum quidam centum verba appellant, Hugonis Sanctelliensis translatus. Prologus eiusdem ad Michaellem Tirassonem [sic] antistitem.

De hiis que ad iudiciorum veritatem actinent, cum in illis totus astronomie consistat effectus secundum arabice secte verissima[m] inquisitionem et tam Grecorum quam Arabum qui huius artis habiti sunt profexores famosissimi auctoritatem, volumina decem in hiis de tam multimoda auctorum copia eligendis diucius obversatus, ne tante expectationis fructus minor tantique laboris merces in aliquo deficere videretur, de arabico in latinum translatavi sermonem. His enim quot sufficiunt ut decent preiacentibus, tota huius artis structura atque series dignissimo gaudebit effectum. Ut enim Aristotiles in libro de signis superioribus asseruit, Siquis prudentissimus faber sive architectus in construenda cuiuslibet hedificii machina congruis et quot sufficiant careat instrumentis, totam fabricam vacillare aut aliquit minus perfectum inveniri necesse est. Quod si nec desit huiusmodi sufficiencia cum opificis industria, non aliud postulat examen, unde et quasi sese comitancia sunt et aliud alio indigere videtur. Nec ab huius ordinis serie declinat quod in prologo Rethorice dicitur sapiencia sine eloquencia parum prodesse civitatibus, eloquencia sine sapiencia prodesse nunquam, obesse plerumque. Quia ergo Ptholomeus inter ceteros astronomie professores precipuus habetur interpres et auctor post Almagesti et Quadripartitum hunc solum de iudiciis astrorum reliquid tractatum, ut tue, mi domine Tirassoniensis antistes, satisfiat iubitioni, eius translacionis fructum ego Sanctelliensis adporto, hac videlicet occasione compulsus ne dum in portu iudiciorum navigas in cimba locatus vasa saxosa formides et ne de tanti preceptoris operibus quippiam abesse queratis. Hic enim, si quelibet hucusque circa huiusmodi negotium fuerat ambiguitas, poterit aboleri, si quelibet disgressionis circuicio, poterit breviri,

⁹ Leclerc, *Histoire de la médecine arabe* (Paris, 1876), ii. 374; Steinschneider, *H. U.*, pp. 527-529; id., *E. U.*, no. 68 a; Nallino, *Albalenii opus astronomicum* (Milan, 1903), i, p. lvii; Pelzer, in *Archivum Franciscanum historicum*, xii. 59 f. (1919).

¹⁰ MS. D. viii. 4, copied at Naples in the fifteenth century. The text proper begins: 'Verbum primum. Astrorum sciencia de te et de illis. Hoc in sermone de te et de illis videtur velle Ptholomeus duplicem esse astrorum scienciam. . . .' Still another version of the *Centiloquium* was used by Albertus Magnus: *Catalogus codicum astrologorum Grecorum*, v. 97; Steinschneider, in *Z. M. Ph.*, xvi. 383.

¹¹ Biblioteca Nacional, MS. 10009, ff. 85-105 v, which lacks the heading but offers a better text.

quidquid tandem hians vel minus perfectum hiis centum verbis poterit reparari. Unde ex ipsius auctoris edicto tuam non incongruum video exortari diligentiam ne tante sapientie archana cuilibet indigno tractanda committas et ne quemlibet participem adhibeas qui pocius gaudet librorum numero quam eorum delectetur artificio.

The dedication to Bishop Michael establishes an approximate date. Of unknown origin, this prelate was placed over the see of Tarazona in 1119, immediately after the recovery of that region from the Moors by Alfonso VII and seven years before Raymond became archbishop of Toledo, and he continued in office until 1151. His labors for the establishment of his authority and the restoration of the ecclesiastical organization throughout his diocese are attested by a number of contemporary documents,¹² but he has not hitherto been known as a patron of learning. From the preface just quoted we see that the translation of the *Centiloquium* was made by his command, to serve as a guide to the voluminous body of astrological literature which had already been placed at his disposal; and, while we must make due allowance for the high-sounding praise of his learning and wisdom in the prefaces printed below, the mere list of the translations made at his orders shows that the *insaciabilis philosophandi aviditas* ascribed to him¹³ is no empty phrase. If he likes compendious treatises, he wishes them to be correct,¹⁴ nor does he desire mere rule-of-thumb manuals which do not explain their reasons.¹⁵ He cannot have been very familiar with Arabic, else there would have been no need of Latin versions for his use, yet he searches for Arabic manuscripts on his own account, one of the texts translated having been found by him in *Rotensi armario et inter secretiora bibliotece penetralia*.¹⁶ *Rotensis*

¹² Lafuente, in *España sagrada*, xlix. 125-142, 330-368; Moret, *Annales de Navarra* (Pamplona, 1766), ii. 285-446; Arigita y Lasa, *Colección de documentos inéditos para la historia de Navarra* (Pamplona, 1900), i. 75, 259, 264; Villanueva, *Viage literario*, xv. 369-378; Bruel, *Chartes de Cluni*, v. 397, 454. The necrology of Monte Aragon (*Nouvelles Archives*, vi. 280) fixes his death 16 February era 1188, which must be interpreted as 1151 since he attests a charter of 23 August 1150 (Férotin, *Chartes de l'abbaye de Silos*, no. 51); cf. *España sagrada*, xlix. 368. He was not a monk of S. Juan de la Peña: *ibid.*, p. 125.

¹³ *Infra*, p. 73.

¹⁴ See the preface to the *Liber imbrum*, *infra*, p. 77.

¹⁵ P. 73.

¹⁶ P. 73.

at first sight suggests Roda, in Aragon, then seat of the bishop of Lérida,¹⁷ but, as these were Arabic manuscripts, there is something to be said for the Moorish stronghold of Rota, now Rueda Jalón, between Tarazona and Saragossa, to which the Moors retreated for a time after the fall of Saragossa in 1118.

The author of this preface, Hugo Sanctallensis, though not previously connected with the *Centiloquium* by bibliographers, has been known as the translator of certain other astrological works, but his time and place have not before been determined. The principal authorities on the occidental translations from the Arabic, Wüstenfeld¹⁸ and Steinschneider,¹⁹ make Michael a French bishop and are inclined to place Hugo in the latter part of the Middle Ages, and while the late Paul Tannery would seem to have reached correct conclusions on these matters, he died before presenting any evidence in support of them.²⁰ As at least two manuscripts of Hugo's translations are of the twelfth century,²¹ he cannot be put later, and the mention of Bishop Michael in the prefaces fixes him definitely in the second quarter of this century and in Aragon. His surname appears in various forms — Sanctelliensis, Sanctellensis, Sanctallensis, Sanctaliensis, Sandaliensis, Satiliensis, Strellensis, and, in Provençal, de Satalia²² — without any indication of the country. None of these forms suggests France or Italy, while they all point to Santalla, a place-name

¹⁷ On Roda see *España sagrada*, xlvi; Villanueva, *Viage literario*, xv. 131 ff.; Beer, *Handschriftenschütze Spaniens*, no. 392.

¹⁸ Pp. 22, 120.

¹⁹ *H. U.*, pp. 566-567, 574; *E. U.*, no. 54. Steinschneider's list of Hugo's writings, which is so far the most complete, enumerates al-Fargani, the Pseudo-Aristotle, the *Liber imbrium*, the *Geomantia*, and the *De spatula*.

²⁰ The materials for this chapter were collected in 1910 and the conclusions drawn before I discovered that Tannery, shortly before his death, had placed Hugo between 1120 and 1150 (*B. M.*, ii. 41). An earlier note of the same author, while assigning him to Aragon, gave as his date the first half of the eleventh century, an obvious impossibility (*Comptes-rendus de l'Académie des inscriptions*, xxv. 529, 1897). His posthumous memoir, primarily concerned with geomancy, will be found in his *Mémoires scientifiques*, iv. 295-411 (1920). For Hugo's date see pp. 334 f.; no new works are indicated.

²¹ MS. Selden Arch. B. 34, in the Bodleian, containing the translation of al-Fargani; B. N., MS. Lat. 13951, containing Apollonius.

²² For the Provençal form see Paul Meyer, in *Romania*, xxvi. 247.

common in the northwest of Spain, especially in Galicia.²³ A reference to the Gauls in one of his prefaces — *Gallorum posteritas tua benignitas largiatur*²⁴ — suggests that Bishop Michael, and perhaps Hugo, had some connection with France. Michael may well have been of French origin, one of the French ecclesiastics brought into Spain in the course of the *reconquista*;²⁵ and in any case it is very likely that copies of these translations were sent beyond the Pyrenees in the same way as those of the Toledo school. Nothing is known of Hugo's relations with the other translators of his age, nor have we any external evidence for his biography; the most that we can do is to examine the treatises upon which he worked, and in these, it is plain, he was closely under the orders of his patron bishop.

So far as the preface to the *Centiloquium* throws light on Hugo's literary labors, it shows him as a student of astrology and divination. From books dealing with these subjects, which he regards as the real justification for the study of astronomy, he has selected and turned into Latin ten volumes which exhibit the principles and applications of the art in all its aspects. The titles of these treatises are not given, but an examination of the numerous translations preserved under his name enables us to identify eight extant versions of astrological and similar works, besides the *Centiloquium*, while in these reference is made to at least five others. From an astronomical point of view, the most important of these is a treatise with the following introduction:²⁶

²³ According to Madoz é Ibañez, *Diccionario geográfico-estadístico-histórico de España* (Madrid, 1846-50) there are twenty places of this name in the province of Lugo, one in the province of Coruña, and one, the largest, in the province of Leon. There is also a Santalle in the province of Oviedo and a Santalha in Traz os Montes.

²⁴ *Infra*, p. 77. This is the passage that misled Wüstenfeld and Steinschneider into thinking Michael a Gallic bishop.

²⁵ Note that French crusaders were established in Tudela, over which Bishop Michael claimed jurisdiction, and that he confirmed the neighboring church of Santa Cruz to the abbey of S.-Martin of Séz: Ordericus Vitalis, v. 1-18; *Gallia Christiana*, xi. 720; *España sagrada*, l. 399 (Jaffé-Löwenfeld, *Regesta*, no. 8803); B. N., MS. Fr. 18953, pp. 38, 220, 259.

²⁶ Bodleian Library, MS. Selden Arch. B. 34, ff. 11-62 v, of the twelfth century. Also in MS. Savile 15, f. 205, saec. xv; and in Caius College, Cambridge, MS. 456, saec. xiii (James, *Catalogue*, p. 531).

Incipit tractatus Alfragani de motibus planetarum commentatus ab Hugoni Sanctaliensis [sic].

Quia nonnullos nec inmerito te conturbat quod priscorum astrologorum intentio multas et varias in suis voluminibus, in his precipue que de stellarum collocatione et situ descripta Arabes azig appellant, videtur protulisse sententias, nullam tamen quare potius sic aut sic agere eorum suaderet tradicio protulere rationem, unde huiusmodi minus plena perfecta que volumina pro auctoris defectu lectoris sensum et intelligentiam corrumpunt. Que cum ita se habeant, nichil ob stare videtur artis istius emulos, hos de quibus loquimur, gemino urgere incommodo, ut videlicet ex ignorantia aut ex invidia hoc factum fuisse coniectent. Nam inter multiplices antiquorum tractatus, de quorum videlicet prudentia ac discretione nulla est hesitatio, nonnulla legimus ea ratione fuisse descripta que tamen ut preceptori sic et lectori inutilia totius posteritatis clamat assertio. In libro autem Alhoarizmi quoniam huiusmodi diversitates te repperire confiteris, eum ex invidia ut supradiximus aut ex ignorantia suspectum esse palam est, sed etiam quendam Alfragani librum de rationibus azig Alhoarizmi imperfectum nec sufficientem te asseris repperiri, ubi videlicet que facilia sunt expediens que intricata et difficilia ad intelligendum fuerant pretermisit. Quia ergo, mi domine Tyrasonensis antistes, ego Sanctelliensis tue petitioni ex me ipso satisfacere non possum, huius commenti translationem, quod super eiusdem auctoris opus edictum in Rotensi armario et inter secretiora bibliotece penetralia tua insaciabilis philosophandi aviditas meruit repperiri, tue dignitati offerre presumo. Habet enim ex tantis astronomie secretis ut placeat et ut ad omnium ex eadem materia voluminum expositionem ex sui integritate sufficiat. Quamvis tamen Alfargani edicione[m] minus plenam perfectamque cognoscam, cum ex aliis suis operibus perfectus et sapiens comprobetur, hec quam subscribam mihi videtur fuisse occasio. Potuit enim fieri ut morte preventus talem relinqueret, aut si perfectum atque emendatum eadem intercessit occasio ne id divulgaret, unde aliquid inde corrumpi aut ab invidorum manibus ut eius auctoritati quicquam derogarent abici satis liquido constat argumento, vel forsitan hic idem Alfargani, quod prudencioris cautele est, tante subtilitatis archana aggredi formidans difficillima pretermittens cetera reseravit. Nemo enim ad huius exposicionis intelligentiam accedere potest nisi geometrie institutis et universo mensurandi genere quasi ad manum plenissime instruat. Ne itaque antiquorum vestigiis penitus insistens a modernis prorsus videar dissentire, non per dialogum, ut apud Arabes habetur, verum more solito atque usitato hoc opus subiciam, ac deinceps non solum Quadrupertiti atque Almaiezti ab Alkindio datam expositionem sed etiam quoddam Aristotilis super totam artem sufficiens et generale commentum, si vita superstes fuerit et facultas detur, te iubente aggrediar.

Ad ingressum cuiuslibet arabici mensis, ut ait Alhoarizmi . . .

As here given from the Selden manuscript, the title of this work is misleading and should be corrected from the other copies to *Hamis Benhamie Machumeti frater de geometria mobilis quantitalis et azig, hoc est canonis stellarum rationibus*. What we have is not

al-Fargani's explanation — this indeed the bishop has found insufficient — of the astronomical tables of al-Khwarizmi, which go back apparently to the Indian astronomers, but a commentary on al-Fargani written, with the aid of the tables and geometrical methods of Ptolemy, by a later astronomer who has recently been identified with Mohammed ben Ahmed el-Biruni.²⁷ A Hebrew translation of this commentary, preserving the questions and answers of the original, was made by Abraham ibn Ezra at Narbonne about 1160,²⁸ with an introduction which shows certain parallelisms with that of Hugo, but no Latin version has hitherto been identified.²⁹ The discovery of such a version, by facilitating a comparison with the translation of the Khorasmian tables made by Adelard of Bath in 1126,³⁰ may be expected to throw some light on the relations between Greek, Indian, and Arabian astronomy. It would be interesting to know in what form the bishop, whose knowledge of Arabic must have been inadequate for the free use of the works which he had Hugo translate, used the Khorasmian tables and the explanation of al-Fargani.

Of the two other works which Hugo has here promised to translate, the commentary of al-Kindi seems to have been lost,³¹ but the *generale commentum* of Aristotle is doubtless contained in two manuscripts of the Bodleian³² under the high-sounding title: *Liber Aristotilis de .255. Indorum voluminibus universalium questionum tam generalium quam circularium summam continens*. The attribution to Aristotle will deceive no one,³³ but the account of

²⁷ Suter, "Der Verfasser des Buches 'Gründe der Tafeln des Chowarezmi,'" in *B. M.*, iv. 127-129, where the utility of a comparative study is suggested.

²⁸ Steinschneider, in *Zeitschrift der deutschen morgenländischen Gesellschaft*, xxiv. 339-359, xxv. 421; *H. U.*, pp. 572-574.

²⁹ Steinschneider, *H. U.*, l. c.; Suter, in *Abhandlungen zur Geschichte der mathematischen Wissenschaften*, xiv. 158.

³⁰ *Supra*, Chapter II.

³¹ A commentary on the *Almagest* appears in the Arabic catalogue of his works (Flügel, in *Abhandlungen für Kunde des Morgenlandes*, i, 2, p. 27, no. 123) but has not been identified among those extant (Suter, in *Abh. Gesch. Math.*, x, 25).

³² MS. Digby 159; MS. Savile 15, f. 185.

³³ With Thorndike (ii. 256 f.), I find no other mention of this compilation. For other pseudo-Aristotelian works on astrology, magic, and divination, see *Catalogus codicum astrologorum Graecorum*, i. 82 f., v. 92, 96, 102; Steinschneider, *E. U.*, no. 141; *Centralblatt für Bibliothekswesen*, Beiheft xii. 87-91; and especially Thorndike, in *Journal of English and Germanic Philology*, xxi. 229-258 (1922).

the books upon which the compilation is based may contain something of interest for students of ancient astrology. The prologue, being chiefly devoted to an account of the two hundred and fifty volumes from which the work is compiled, yields no new information for the translator's biography. The opening and closing portions are:

Ex multiplici questionum genere et ex intimis philosophię secretis, quibus frequenter mee parvitatıs aures pulsare non desinis, subtilissime tue inquisitionis archanum et celebris memorię intrinsecam vim et purissime discretionis intelligentiam, ad quam videlicet nostri temporis quispiam aspirare frustra nititur, manifestius licet attendere. Quare quod ex libris antiquorum percepi aut experimento didici aut existimatione sola credidi aut exercitio comparavi, et assidua scribere cogit exortatio et imperitię veretur formido. Ad graviora transcendere subtiliora penetrare novis etiam affluere tanta preceptoris daret auctoritas, si congrua ociandi daretur facultas. Nam humani generis error, ut qui inscientię crapula sui oblitus edormit stulticię nubibus soporata iudicio philosophantium sectam estimans lacivienti verborum petulantia, sicut huius temporis sapere negligit, sapientes et honestos inconstantię ascribit, veritatis concives imperitos diiudicat, verecundos atque patientes stolidos reputat. Ego tamen, quoniam auctoritate Tullii ad amicam libera est iactantia,²⁴ amore discipline cui semper pro ingenii viribus vigilanter institi Arabes ingressus, si voto potiri minime contigisset, Indos autem Egiptum pariter adire, si facultas unde libet²⁵ subveniat insaciata philosophandi aviditas omni metu abiecto nullatenus formidaret, ut saltem, dum ipsius philosophię vernulas arroganti supercilio negligunt, scientię tamen quantulamcumque portionem vix tandem adeptam minime depravari contingat sed potius ab eius amicis et secretariis venerari. Nunc autem, mi domine antistes Michael, sub te tanto scientiarum principe me militari posse triumpho, quem tocius honestatis fama et amor discipline insaciatius ultra modernos vel coequevos sic extollunt ut nemo huius temporis recte sapiens philosophi nomen et tante dignitatis vocabulum te meruisse invidet. Unde fit ut hoc duplici munere beatus, dum hinc amor hinc honestas tertium quod est amor honestus constituent, non modicum prohibitatis habes solacium. Ego itaque Sanctellensis Hugo tue sublimitatis servus²⁶ ac indignus minister, ut animo sic et corpore labori et ocio expositus dum et mentis corporis torporem excitando pulsas oblivionis delens incommodum, quoniam id assidua vult exortatio quod a nullo modernorum plenissime valet explicari, ne plus videar sapere quam oportet sapere, quodque a meipso haberi scientię negat viduitas ab aliis mutuari priscorum multiplex suadet auctoritas, hunc librum ex arabice lingue opulentia in latinum transformavi sermonem. Sed quoniam, ut ait quidam sapiens, tam secretis misticisque rebus vivaciter pertrac-

²⁴ Doubtful; *iactantia* is not Ciceronian.

²⁵ The Savile MS. has 'unde libri.'

²⁶ Dr. Craster of the Bodleian and Professor Thorndike (ii. 85 f.) have corrected my earlier reading of 'serus' in the first printing of this text.

tandis multimoda sunt auctoritatum perquirenda suffragia, istius auctor operis ex .cc.l. philosophorum voluminibus qui de astronomia conscripserunt hoc excultum esse asseruit, a quorum nominibus serio conterendis proprie narrationis duxit exordium. . . .

Hunc ergo, mi domine, ex tot ac tantis philosophorum voluminibus et quasi ex intimis astronomie visceribus ab eodem, ut iam dictum est, excepi, tamen et si mea de arabico in latinum mutuavit devocio suprema, tamen tue tam honeste ammonicionis optatos portus dabit correptio. Explicit prologus. Incipit Aristotilis comentum in astrologiam. Primo quidem omnium id recte atque convenienter preponi videtur . . .

Among more special works on astrology, we learn that Hugo translated four treatises on nativities, one of these, from the Arabic of Mashallah, beginning as follows: ³⁷

Liber Messehale de nativitatibus .14. distinctus capitulis Hugonis Sanctalliensis translatio. Prologus eiusdem ad Michaellem Tirassone antistitem.

Libellum hunc Messehale de nativitatibus, etsi apud nos Albumazar et Alheacib Alcufi ex eodem negocio et nostre translacionis studio plenissime habeantur, ob hoc placuit transferri ut quemadmodum ex eius secretis et iudiciorum via et ceteris astronomie institutis tua, mi domine antistes Michael, pollet sciencia tuumque pre ceteris studium nec inmerito gloriatur, sic et in genezia, nativitatium dico, speculatione tanti preceptoris certa imitando vestigia copiosius triumphet. Hoc igitur ego Sanctalliensis, non tam meo labore faciente quam auctoris testimonio confisus, ut placeam mitto compendium, quendam alium librum de eadem materia a quodam Messehale discipulo Abualy Alhual nomine editum deinceps tractaturus, ut et supra nominatis voluminibus hoc attestante maior insit auctoritas et tanquam variis diversarum opum ferculis tua in hoc negocio sicietur aviditas. . . . Ut alio sicut idem asserit Messehala nullatenus videatur indigere. Explicit prologus. Incipit textus. Quamvis librum istum ex ordine a libro secretorum assumpto per .14. capitula dividendum proposuerim . . .

Of the authors of the two versions which are here mentioned as already completed, Albumazar is, of course, abu Ma'ashar Ja'afar, author of a number of works on astronomy and astrology, including one on nativities which has not yet been specially studied; ³⁸ Alheacib Alcufi I have not identified, unless the name be a corruption of el-Chastb. ³⁹ Various manuscripts of abu Ali's work on the same subject exist, all of them anonymous except

³⁷ Bodleian, MS. Savile 15, f. 177 v. This translation is unknown to the bibliographers.

³⁸ On his writings see Steinschneider, *H. U.*, pp. 566 ff., and *E. U.*, no. 165; Suter, no. 53; Houtsma, *Encyclopaedia of Islam*, i. 100.

³⁹ Suter, no. 62. Professor Suter suggested this identification to me in a letter of 16 May 1911.

one in the Bodleian which ascribes the translation to John of Seville.⁴⁰

Hugo's translation of another work of Albumazar dealing especially with meteorological predictions is found in a score of manuscripts⁴¹ and two early editions. The preface reads:

Incipit liber ymbrium ab antiquo Indorum astrologo nomine Iafar editus deinde vero a Cillenio Mercurio abbreviatus. Superioris discipline inconcussam veritatem . . . Quia ergo, mi domine antistes Michael, non solum compendiosa sed etiam certa et ad unguem correcta te semper optare cognovi, hunc de pluviis libellum ab antiquo Indorum astrologo Iafar nomine editum, deinceps a Cillenio Mercurio sub brevitatis ordine correctum, tue offero dignitati, ut quod potissimum sibi deesse moderni deflent astrologi Gallorum posteritati tua benignitas largiatur. Incipit series libri. Universa astronomie iudicia⁴² . . .

Hugo is not mentioned in the text but is found in the margin of one of the manuscripts.⁴³ Two similar treatises, ascribed to Mashallah and al-Kindi, appear as having been translated by a Master Drogo or Azogo, which has been conjectured to be a corruption of Hugo;⁴⁴ but as these are not accompanied by prefaces, the question must for the present remain open.

Those who look for signs in the heavens are likely also to look for them on the earth, and we are not surprised to find that Hugo was the author of an elaborate treatise on geomancy, based upon the work of an unknown Tripolitan (Alatrabulucus) and sufficient to give him a certain reputation among vernacular writers

⁴⁰ MS. Laud 594. See Steinschneider, *E. U.*, no. 68 m; and in *B. M.*, 1890, pp. 69 f.

⁴¹ Besides those mentioned by Steinschneider, *H. U.*, p. 566, see MS. Bodl. 463, f. 20 (= Bernard, No. 2456); MS. Savile 15; Corpus Christi College, Oxford, MS. 233; Clare College, Cambridge, MS. 15; Bibliothèque Nationale, MS. Lat. 7329, f. 66 v, MS. Lat. 7316, f. 167 (extract only); Leyden, Scaliger MS. 46, f. 36; Madrid, MS. 10063, f. 43; Vatican, MS. Reg. 1452, f. 29; MS. Borghese 312, f. 43; Venice, Cl. xi. 107, f. 53 (Valentinelli, iv. 285). Printed at Venice in 1507 with al-Kindi, *De pluviis*; also at Paris, 1540, from which edition is copied MS. 529 of the University of Coimbra. On Jafar cf. Tannery, pp. 337 f.

⁴² Bodleian, MS. Savile 15, f. 175 v.

⁴³ Steinschneider, *l. c.*

⁴⁴ Leclerc, *Histoire de la médecine arabe*, ii. 476 (where MS. Lat. 7439 should be 7440, and 10251 is incorrect); Steinschneider, *H. U.*, pp. 564, 600; *E. U.*, nos. 36, 54 d; Suter, no. 8.

as an authority on this art,⁴⁵ which he seems to have introduced into Latin Europe.⁴⁶ The copy in the Bibliothèque Nationale begins:⁴⁷

Incipit prologus super artem geomantie secundum magistrum Ugonem Sanctelliensem interpretem qui eam de arabico in latinum transtulit.

Rerum opifex Deus qui sine exemplo nova condidit universa, ante ipsam generationem de illorum futuro statu mente diiudicans, hec quidem etiam que de sue universitatis thesauro rationali creature largiri dignatur singulis prout ipse vult distribuit. Unde universa creatura tam rationalis quam irrationalis vel inanimata eidem exhibet obedientiam ac, licet in vita ad secularium ordinem dilapsa, eum saltem ex sola unitate veneratur. Imaginarie priusquam fierent cuncta habens eorundem noticiam archano cordium quasi suspectam et intellectualem infudit. Habite tandem creature hic modus consistit ut summities atque venerandos scriptorum institutores atque huiusmodi computationis industria quasi quadam compagine sociaret, ut ablata tocus alterationis rixa rationale alias positiva iusticia nexu equabili federaret adinvicem. Cum igitur universos stolidos videlicet tanquam sapientes ad philosophandum pronos fore contigisset, eruditior prudentium secta ad computandi artem et astronomie secreta rimanda mentis oculum revocans, astrorum loca cursus directos retrogradationes ortus occasus sublimationes depressiones et que sunt in his alterationes atque admiranda prodigia attendens, astrologorum minus prudentium multiplicem cognovit errorem. Hac igitur ratione cogente compendium hoc certissimum ex his omnibus prudens adinvenit antiquitas. Denique apud universos philosophie professores ratum arbitror et constans quicquid in hoc mundo conditum subsistendi vice sortitum est haut dissimile exemplar in superiori circulo possidere, quicquid etiam hic inferius motu quolibet agitur superioris regionis motus sibi congruos imitari. Sicque manifestum est quia huiusmodi figure quas hic prosequi volumus signorum pariter et lunarium mansionum formas omnino sequuntur . . . Quia huiusmodi artificium antiquissimum fore et apud sapientum quamplurimos dignos et indignos in usu fuisse philosophorum antiquitas refert, ego Sancelliensis⁴⁸ geomantie inscriptionem aggredior et tibi, mi domine Tirasonensis antistes, ex priscorum opulencia huiusmodi munusculum adporto, aeremantia et piromantia quas audivi sed

⁴⁵ Paul Meyer, "Traité en vers provençaux sur l'astrologie et la géomancie," in *Romania*, xxvi. 247-250, 275. Cf. Steinschneider, *E. U.*, no. 54 c. On geomancy in general, see Thorndike, ii. 110 ff.

⁴⁶ Tannery, iv. 329.

⁴⁷ MS. Lat. 7354, written in the thirteenth century, apparently in Spain or southern France. Also in Vatican, MS. Pal. Lat. 1457; Bodleian, MS. Digby 50, f. 1; MS. Bodley 625, f. 54; Cambridge, Magdalene College, MS. 27; Vienna, MSS. 5327, 5508 (the last three I owe to Thorndike, ii. 86). The treatise of Hugo on geomancy preserved in the Laurentian and studied by Meyer has a different *incipit* and may be another work. See Tannery, pp. 324-328, 339-344, 373-411.

⁴⁸ Vat. Pal. Lat. 1457 has 'Hugo Sanctalliensis.'

minime contingit reperiri postpositis, deinceps idromantiam tractaturus . . . Que quidem disciplina sub quadam existimatione potissimum manat ab antiquorum peritissimis, ut iam dictum est, qua ipsi noverint ratione certis experimentis usitata. Explicit prologus.

Arenam limpidissimam a nemine conculcatam et de profundo ante solis ortum assumptam . . .

Whether Hugo ever wrote on hydromancy or succeeded in informing himself on aeromancy or pyromancy, we cannot say; but while searching the heavens above and the earth beneath and the waters under the earth, he did not disdain the humbler form of divination which draws its inferences from the shoulder-blades of animals, and we have under his name two short treatises on spatulamancy. The first, which claims to go back ultimately to Greek sources, begins: ⁴⁹

Refert Ablaudius babilonicus inter antiquissima Grecorum volumina cartam vetustissimam in qua de spatule agnitione nonnulla continebantur precepta apud Athena[s] se invenisse. . . . Hunc igitur librum, cuius auctor apud Caldeos Anunbarhis (?) apud Grecos Hermes fuisse legitur, et tante antiquitatis arkana et latinum aggrediar sermonem. . . . Quia igitur, mi domine antistes Michael, tuo munere tuaque munificentia ut me ipsum habeo, sic et philosophantium vestigii desidia et ignorantia gravatus insisto, ne ceteris compensatis istius expers inveniaris discipline, hoc tibi de spatula mitto preludeum. . . .

In medio itaque cartilaginis foramen ultra eminens repertum pecoris domino pacem nunciat . . .

This is followed by a similar *Liber Abdalabeni Zolemani de spatula Hugonis translatio*.⁵⁰

Another translation of Hugo Sanctallensis, not mentioned in his prefaces or by modern writers, appears in the Bibliothèque Nationale in a manuscript of the close of the twelfth century formerly at St.-Germain-des-Prés, where it received the title in a modern hand, *Hermetis Trimegesti Liber de secretis naturae et*

⁴⁹ Bodleian, Ashmolean MS. 342, f. 38, headed "Tractatus de spatula" and referred to in the margin as "Hugonis translatio"; B. N., MS. lat. 1461, f. 68. The tract in MS. Canon. Misc. 396, ff. 106-110, mentioned by Steinschneider (*E. U.*, no. 54 c) is different, beginning, 'Incipiam adiutorio Dei.' Steinschneider curiously fails to understand the meaning of *spatula*.

⁵⁰ Ashmolean MS. 342, f. 40 v; MS. lat. 1461, f. 71 v. Cf. Tannery, *Mémoires*, iv. 340. The references to MS. lat. 1461 I owe to the kindness of Dr. Birkenmajer.

occultis rerum causis ab Apollonio translatus. It begins and ends:⁵¹

Incipit liber Apollonii de principalibus rerum causis et primo de celestibus corporibus et stellis et planetis et etiam de mineriis et animantibus, tandem de homine.

In huius voluminis serie eam principaliter tractatus sum disciplinam ex qua philosophorum antiquissimi susceptae narrationis protulerunt exordium, ut meę intentionis agnita prudentia et ad vestram aspirare valeat intelligentiam et intimam pulsare discretionis naturam. Cuiuscumque ergo naturalis intentio huius sermonis capax extiterit eam accidentalibus vel quasi extraneis sollicitudinibus incursu liberam velud a sompno excitari palam est. . . . Quod videlicet Hermes philosophus triplicem sapientiam vel triplicem scientiam appellat. Explicit liber Apollonii de secretis nature et occultis rerum causis, Hugonis Sanctelliensis translatio .vi. partitionibus discretus.

As a result of this investigation we now have, as against the five previously known, nine extant translations by Hugo, not counting those ascribed to Drogo and Azogo, besides two others which have been lost or are still to be identified⁵² and three which he promises but may not have completed.⁵³ None of these are dated, but the *Centiloquium* is one of his later efforts, since ten have been produced before it, while the Khorasmian commentary is evidently early, being anterior to the Pseudo-Aristotle. It would seem that both translator and patron gave chief attention first to astronomy and later to astrology, but to draw a sharp line between these subjects would be contrary to the spirit of mediaeval, if not of Greek, learning, to which they were simply the pure and the applied aspects of the same subject. There is no evidence on Hugo's part of initiative or power of adaptation, indeed he expressly disclaims the ability to elucidate these problems from his own knowledge; he was a translator, rather than a compiler or popularizer. There is, at the same time, no indication of any connection with the other translators of his age,

⁵¹ MS. lat. 13951, ff. 1-31. This translation is analyzed by F. Nau, in *Revue de l'Orient chrétien*, xii. 99-106 (1907). On Apollonius see also Thorndike, i. 267, ii. 282 f.

⁵² The *De nativitatibus* of Albumazar and of Alheacib Alcufi. Tannery has shown that there is no reason for assigning to our Hugo the *Practica Hugonis*, a geometrical treatise of the twelfth century: *B. M.*, ii. 41; *Mémoires scientifiques*, iv. 331-333.

⁵³ Abu Ali, *De nativitatibus*; al-Kindi, *Expositio Quadripartiti atque Almaiesti: Idromantia*.

and the fact that certain of the treatises at which he labored were also translated by John of Seville indicates that they worked independently. That Hugo's versions nevertheless obtained a certain currency is shown by the number and wide distribution of the existing manuscripts, and the range and quantity of his work entitle him to a respectable place among the Spanish translators of the twelfth century.

CHAPTER V

SOME TWELFTH-CENTURY WRITERS ON ASTRONOMY

THE growth of astronomical knowledge in western Europe in the twelfth century constitutes an interesting chapter of intellectual history. The century opens with the traditional learning of the older encyclopedists and the standard manuals of *computus*. Then comes a definite revival of the Platonic cosmology, chiefly in conjunction with the school of Chartres, so that Platonic influences are clearly marked in the first exponents of Arabic astronomy in the second quarter of the century, as illustrated by the *Questiones* of Adelard of Bath and the *De essentiis* of Hermann of Carinthia. These, however, are accompanied and followed by translations of the tables of al-Khwarizmi and al-Zarkali, and the treatises of al-Fargani and al-Battani, as well as by a mass of astrological literature. The translation of Ptolemy's *Almagest* from the Greek ca. 1160 and from the Arabic in 1175 made possible the full reception of ancient astronomy. Meanwhile the Aristotelian physics had begun to filter in through Arabic writers, and the conflict of this with Plato and Ptolemy sorely puzzled an age which desired at all costs to reconcile its standard authorities. The new knowledge, the new controversies, and the more exact observations long occupied some of the best minds of the age, whose activity is reflected in a fairly abundant body of literature, both anonymous and ascribed to known authors; and the sharp contrast between the astronomical writings of the beginning and end of the century helps us to measure the intellectual progress of the intervening years.

The history of this phase of European thought has still to be written. The late Pierre Duhem made an admirable beginning as a part of his comprehensive survey of cosmological theories in antiquity and the Middle Ages;¹ but, valuable as is his analysis on the scientific side, it rests, for the twelfth century, on a quite

¹ *Le système du monde de Platon à Copernic* (Paris, 1913-17).

inadequate examination of the material. For some unexplained reason he never saw the *Questiones naturales* of Adelard, though it is available in three editions as well as a score of MSS.; he explored but little the large number of unpublished treatises; and he left untouched many problems of date and authorship. Thorndike's new material² is chiefly concerned with magic and astrology; the relevant volumes in Baeumker's *Beiträge* are primarily philosophical in content. As a contribution to the general history of astronomy, it may be worth while to describe certain unpublished treatises which I have come upon, illustrating as they do the various ways in which the new learning made itself felt.

COMPUTISTS

One of the clearest indications of intellectual revival in the early twelfth century is the large number of manuscripts of that period or shortly before which deal with the elements of arithmetical and astronomical reckoning. On the side of arithmetic these take the form chiefly of treatises on the abacus, carrying on the tradition of Gerbert and the Lotharingian abacists of the eleventh century and elaborating this in its practical aspects.³ On the side of astronomy activity is seen partly in copies and excerpts from the older manuals of Bede and Heiric of Auxerre,⁴ occasionally with extracts from Isidore and Hyginus and, in the more ambitious works, with illustrations;⁵ partly in new compilations. A good example of the learning of this period is contained in a manuscript of St. John's College, Oxford, made up of material copied in the

² *History of Magic and Experimental Science* (New York, 1923).

³ See Chapter XV, below; Bubnov, *Opera Gerberti*, app. vi.; Cantor, i. ch. 40.

⁴ See the list of MSS. in the admirable study of Traube, "Compotus Helperici," *Neues Archiv*, xviii. 73-105, 724 f. Duhem (iii. 71 f.) unfortunately overlooked Traube's work. Helperic's treatise will be found in Migne, cxxxvii. 15; Bede's, *ibid.*, xc. 293. For other examples of collections of excerpts, cf. Arsenal, MS. 371, ff. 75 v-87; Evreux, MS. 60 (from Lire); Dijon, MS. 448. Cf. the extracts from Bede (*De natura rerum*, c. 45) and the *Geometry* of Gerbert at Tortosa, MS. 80 (*Revue des bibliothèques*, vi. 16).

⁵ Cf. Saxl, in Heidelberg *Sitzungsberichte*, 1915, no. 6-7. A good example is the Ripoll MS. of 1056: Saxl, pp. 45-59; supra, Chapter I, n. 18. There are some good figures of constellations in early English MSS., e. g., Cotton MS. Tiberius, C. i, ff. 21-32 v; Harleian MS. 647, ff. 2 v-13.

later eleventh and early twelfth centuries.⁶ Besides Bede and Heiric of Auxerre, with a preface by Brithferth, monk of Ramsey, it contains astronomical tables and excerpts, extracts from the arithmetic of Boethius, treatises on the abacus as late as that of Gerland,⁷ and some scattered medical and grammatical notes. 'The present time' is given as 1110 on f. 3 v; the lunar tables on f. 29 begin with 1083 and contain marginal entries from 1085 to 1111 which show that in these years this part of the manuscript was in possession of Thorney Abbey. Other examples of this age, which we shall examine in other connections,⁸ are the writings of Thurkil the computist and the *Comput* of Philip de Thaon (1119).

The ecclesiastical preoccupations of the close of the eleventh century are illustrated in the discussions of the basis of the Christian era. Marianus Scotus the chronicler, who died at Mainz in 1082, made a determined effort to supplant the current Dionysian era as twenty-two years too late, and the argument was developed in England by a 'learned Lorrainer,' Robert, bishop of Hereford from 1079 to 1095; but the new system found few adherents.⁹ A similar theory appears in an anonymous *Liber decennalis in modum dialogi compositus* preserved in the Biblioteca Angelica at Rome,¹⁰ where the author, arguing from the astronomical cycles, finds a discrepancy of twenty-one years in the Dionysian era, so that the current year of 1092 is corrected to 1113.¹¹

⁶ MS. 17. See the detailed description in Coxe's *Catalogus*, and Bubnov, pp. lii f.; and cf. Singer, "Byrhtferd's Diagram," in the *Bodleian Quarterly Record*, ii, no. 14 (1917); and in *Proceedings of the Royal Society of Medicine*, x, 118-160 (1917); R. L. Poole, *The Exchequer in the Twelfth Century*, p. 47, note.

⁷ Ff. 50-52, not identified by Bubnov, printed in *Bullettino*, x, 597-607.

⁸ *Infra*, Chapters XV, XVI.

⁹ See Robert's treatise in the Bodleian, MSS. Auct. F. 3. 14 and Auct. F. 5. 19 (2148), f. 1; and cf. W. H. Stevenson in *E. H. R.*, xxii. 72 ff.

¹⁰ MS. 1413, ff. 1-24 (saec. xii): 'Cum temporum scriptores diversi quamvis diverse . . .'

¹¹ 'Presens autem annus secundum veraciorem evangelio congruentem numerum est ab incarnatione Domini annus millesimus centesimus tertius decimus habens concurrentes iiij^{or} cum bissexto, epactas .viii., terminum paschalem versum 'Sene kalende titulant ternos,' diem dominicum .v^o. kal. aprilis, indictionem xv. Secundum Dionysium autem est annus ab Adam quinque millesimus quadragessimus tertius, ab incarnatione vero Domini millesimus nonagesimus secundus, distans annis xxi^o ab ea consequentia paschalis compoti quam superius posui et que presenti anno competit' (f. 21).

Another critic of Dionysius in this period was Gerland in his *Computus*, who works out an era seven years earlier than the Dionysian. Author likewise of treatises on the abacus¹² and on ecclesiastical matters, Gerland has usually been identified with a canon of Besançon who appears in documents of 1132-48, in which latter year he and Thierry of Chartres, *duos fama et gloria doctores*, accompanied the archbishop of Trier down the Rhine.¹³ It would seem, however, that this is a different person from the computist, who specifically gives the year of his treatise as 1081,¹⁴ whose 'floruit' is given as 1084 at Besançon by Albericus,¹⁵ and who is cited as early as 1102.¹⁶ His *Computus*, in twenty-seven chapters, while criticizing Dionysius and Helperic, purports to follow closely Bede,¹⁷ who is cited by chapter. The author adds

¹² Published in *Bullettino*, x. 595-607. "Gerlandus ex libro magistri Franconis Legiensis" in MS. 107 of the University of Edinburgh, ff. 62 v-68, turns out to be neither mathematical nor astronomical, but is evidently the same as the "De ligno crucis" at Trinity College, Dublin, MS. 517.

¹³ See Boncompagni, *ibid.*, pp. 648-656; Cantor, i. 808; *Histoire littéraire*, xii. 275-279; T. Wright, *Biographia literaria*, ii. 16; and in *Transactions of Royal Society of Literature*, ii. 72-75 (1847); U. Robert, in *Analecta juris pontificii*, xii. 596-614 (1873).

¹⁴ 'Ab incarnatione domini modo sunt .i. lxxxi^{aa}. annus': B. N., MS. lat. 11260, f. 15 v. This occurs in what may be supplementary to the treatise proper, which differs considerably in the different MSS., and in some (e. g., MS. lat. 15118, f. 39) has what purports to be a second book. The tables of the earlier part, however, clearly belong to the close of the eleventh century. Thus in MS. lat. 15118 they begin at 1082 (f. 37), mention the eclipse of 23 September 1093 (f. 50), and have notes on eclipses added after 1102 (ff. 31 v, 32); cf. the reference to 1094 on f. 33. In MS. Rawlinson C. 749 of the Bodleian, f. 11 v, we have eclipses, 'nostris temporibus,' of 1085-95, i. e., 1093-1103 by the ordinary reckoning, including the eclipse of 23 September 1093, the difference of era being here reckoned as eight years.

¹⁵ *Scriptores*, xxiii. 800.

¹⁶ *Infra*, Chapter XV, n. 37.

¹⁷ 'Sepe volumina domini Bedę de scientia computandi replicans et in eis quedam aliter quam tradicio doctorum ostenderet presentium repperiens, Dei fretus auxilio Deum invocans preesse meo operi que visa fuerunt mihi utilissima inde pro captu ingenio mei defloravi et deflorata cum quibusdam aliunde conquisitis in unum congessi. Quęso itaque, si unquam hec compositionis fimbria, hec stili ariditas, huius scientię gutta ad alicuius intuitum pervenerit, ne statim in morsum livoris dentes exacuatur nec antequam perlegat preiudicet, ne si quid in toto notandum invenerit pro parte totum, ut nonnulli solent, vituperet, quandoquidem, ut ait non insipientium quidam, nichil ex omni parte beatum. Non equidem me latet quosdam qui Helpericum legerunt et tabulam Dionisii viderunt aliter in quibusdam sentire

quotations from the Fathers, Pliny, Virgil, and 'Cingius,'¹⁸ and works out various lunar calculations by the awkward methods of Roman fractions and the subdivision of the hour into points, moments, and atoms. To Gerland the *compulus* is based partly on nature and partly on authority,¹⁹ but in the long run authority proved too strong for him. Various copies of his treatise survive, and he is often cited with respect,²⁰ but most writers of the twelfth century look askance at him as contravening the settled usage of the church.²¹

In the later twelfth century writings on the *compulus* conserve much the same character. Examples are the treatises of 1159 and 1161 just cited in connection with Gerland;²² the *Summa magistri Wilelmi de compoto* of 1163;²³ a treatise of 1169;²⁴ and the *Compotus Petri* of 1171.²⁵ The treatise of Michael, monk of Dover, now in Glasgow, is undated,²⁶ as is also an anonymous set of

quam ego. Sed si quis Bedam perlegerit et naturalem compotum tenere voluerit, hic ut arbitror partim auctoritati partim artis naturę acquiescens non indigne feret hic quedam esse posita que obviare videntur Dionisio, quedam que Helperico. Nec tamen eos censeo redarguendos per omnia si in aliquam partem somnus obrepserit, quia [ubi] spiritus vult spirat, aliquando autem ut ardentius queratur subterfugit.' B. N., MS. lat. 11260, f. 1 v. Cf. f. 11 v: 'Venerabilis Beda cuius fere verba per totum hoc opusculum dispersimus.'

¹⁸ 'Cingius' or 'Zingius' appears in Philip de Thaon, *Li cumpoz*, l. 744; and the *compulus* of 1102 in MS. Vat. lat. 3123, f. 47 v; and B. N., MS. lat. 11260, f. 25 v. The reference is to the *Fasti* of L. Cincius as quoted by Macrobius, *Saturnalia*, 1, 12, 12.

¹⁹ MS. lat. 11260, f. 7 v.

²⁰ E. g., 'Gerlandus vero Lotharencus in extremis omnes alios correxit et scripta vilissima cum tabula abiecit': anonymous treatise in Cotton MS. Titus D. vii, f. 14 ('Quid in compoto doceatur . . .') Cf. Philip de Thaon, *infra*, Chapter XV.

²¹ 'Liber Gerlanni non legitur quia longo usui et doctissimorum auctoritati obviavit': B. N., MS. lat. 2020, f. 198, a treatise of 1171. See further the passages cited by T. Wright, in *Transactions of the Royal Society of Literature*, ii. 74 f.

²² MS. Cotton Vitellius A. xii, ff. 101-103 v, 105-106. See note 30.

²³ B. N., MS. lat. 10358, ff. 273 v-283 v; described in *B. E. C.*, xvii. 403. In MS. Digby 56, ff. 202-219 v, the treatise is dated 1164 (f. 219). Inc. 'Annorum duo sunt genera . . .'

²⁴ Laon, MS. 71, which I know only from the catalogue.

²⁵ Bibliothèque Mazarine, MS. 3642, ff. 13-49 v, incomplete at the beginning (the date occurs on f. 44). Apparently the same as a *compulus* in MS. lat. 2020, f. 198, also dated 1171, and beginning 'Sunt in aliis artibus . . .'

²⁶ Hunterian Museum, MS. 467, where three treatises are attributed to him, though the first looks like a copy of Helperic. The printed catalogue gives this

eighty-five *Regule de compoto* in Brussels.²⁷ Three copies of a *Computus constabularii* were formerly at Canterbury.²⁸

In such conservative circles it was natural that Arabic astronomy should penetrate slowly, and we are not surprised that Roger of Hereford should inveigh against the ignorance of the computists as late as 1176.²⁹ An early example of the introduction of Arabic influence into such works is seen in an anonymous treatise of thirty-nine chapters composed in 1175, apparently in England.³⁰ The author is an admirer of Gerland, whom he imitates in the opening sentence and whom he proposes to follow except where ecclesiastical usage would be contravened:

Sepe auctorum volumina qui de compoto vel principaliter vel incidenter egerunt studiose revolvi, inter quos invenio quosdam iuniores in arte calculatoria non mediocriter eruditos longo usui ecclesie rationibus vehementer, ut videtur, acutis obviare. His quidam nostrorum modernorum applaudentes nuper ausi sunt cartulis pascalibus suas novitates inscribere et sanctorum patrum vestigia preterire. Sunt enim quidam novitatis venatores et antiquitatis improbi calumpniatores qui etiam in doctrina Christiana locum ab auctoritate tanquam inartificiosum superciliose repudiant et de suo confidentes ingenio aliter quam tota ecclesia soli sentire volunt ut soli scire videantur. Sed, quod deterius est, vidi equidem doluique videre scripto quoque commendatum quedam aliter se habere secundum ecclesiam, aliter secundum veritatem. Te quoque, dilectissime, timor Domini et reverentia fidei catholice vehementer abhorrere fecerunt veritatem et ecclesiam in aliquo posse reperiri contrarias. Quoniam igitur rationes illorum nobis vise sunt posse non irrationabiliter infirmari, quod proprio consilio non audebam, tuo propulsus instinctu illis respondere aggressus sum. . . . Ceterum propter instructionem aliorum et precipue G. mei quem in omni scientia et virtute proficere cupio, universum apposui percurrere compotum quatenus singula que mihi dubitabilia visa sunt explanarem. Noveris etiam preter ceteros auctores Geraldum quoque imitatum et etiam imitandum in omnibus exceptis hiis in quibus obviat usui ecclesie, nam ubi bene dicit nemo melius. . . .

portion of the MS. as saec. xii, but the algorism (no. 3) there ascribed to Michael is not earlier than the thirteenth century, to judge by its contents. I have a photograph of no. 3 only. Cf. the musical writer, Tenred of Dover: *E. H. R.*, xxx. 658-660.

²⁷ Bibliothèque Royale, 2194, ff. 8 v-48 v (saec. xii): 'Si invenire volueris per quam feriam . . .'

²⁸ M. R. James, *Ancient Libraries of Canterbury and Dover*, p. 49.

²⁹ Digby MS. 40, ff. 21-21 v.

³⁰ Cotton MS. Vitellius A. xii, ff. 87-97 v, with tables appended: 'Sepe auctorum volumina . . .'. The date appears from ff. 90 v, 93, 94. The reference to England is on f. 96: 'Quando est luna distans a sole paulo minus quam xxix gradibus in Anglia non apparebit maxime circa equinoctium autumnale.'

The author has a broader education than most computists, as he cites, with references, passages from Hippocrates, Solinus, Pliny, and the *Digest*. The astronomers, cited in the later chapters chiefly respecting the date of the vernal equinox, are Ptolemy, Hipparchus, Thabit, al-Battani, al-Zarkali, and al-Fargani.

THE SCHOOL OF CHARTRES

The persistent influence of Plato is one of the curious facts in the intellectual history of the Middle Ages. If we accept Schlegel's dictum that every one is either Platonist or Aristotelian, then the Middle Ages were clearly Aristotelian, but with lapses into Platonism and resultant efforts to reconcile the two systems. Until the translation of the *Meno* and *Phaedo*, ca. 1156,³¹ the only work of Plato directly known to the western Europe of the Middle Ages was the *Timaeus*, or rather the first fifty-three chapters as translated and commented upon by Chalcidius in the fourth century.³² This in itself is a curious fact, for "of all the writings of Plato," says Jowett,³³ "the *Timaeus* is the most obscure and repulsive to the modern reader, and has nevertheless had the greatest influence over the ancient and mediaeval world." Accordingly, mediaeval Platonism was largely concerned with the vague and mystic cosmogony of this dialogue. The other principal source of Platonism was the fifth-century commentary of Macrobius on the *Somnium Scipionis* of Cicero.³⁴ Revived in the tenth century, this contained a considerable amount of ancient astronomy and geography; and it served as the vehicle for transmitting an important fragment of non-Platonic astronomy, the hypothesis respecting the movement of Venus and Mercury about the sun which is commonly ascribed to Heraclides of Pontus. Neo-Platonism concerns us less at this point, as its influence becomes

³¹ *Infra*, Chapter IX.

³² Ed. Wrobel, Leipzig, 1876; the commentary is examined by Switalski, *Beiträge*, iii, no. 6 (1908).

³³ *Dialogues of Plato*, ii. 455.

³⁴ Duhem, iii. 47 ff.; M. Schedler, *Die Philosophie des Macrobius und ihr Einfluss* (*Beiträge*, xiii, no. 1, 1916); and, for the hypothesis of Heraclides, J. L. E. Dreyer, *History of the Planetary Systems* (Cambridge, 1906), ch. 6.

important only with the thirteenth century.³⁵ There are also bits of Platonism in the astronomical part of Martianus Capella, from which an extract beginning 'Mundus igitur ex quatuor elementis . . .' is sometimes found in manuscripts of the period.³⁶

How Martianus was copied and conflated in this period is illustrated by a treatise which masquerades under the title of *Liber Iparci*,³⁷ but has no direct relation to Hipparchus, whose influence, under the form Abrachis, must be sought rather among translators from the Arabic. Beginning with a rearrangement of extracts from Bede's *De naturis rerum*, the author soon³⁸ picks up the eighth book of Martianus, which he follows through the climates, inserting a bit on climates from the sixth book of Pliny and the discussion of tides in Bede's *De temporum ratione* (c. 29). Closer search might reveal scattered passages from other sources.³⁹

In the twelfth century there was a definite revival of Platonism in the school of Chartres.⁴⁰ Its chief exponents were William of Conches, Bernard Silvester, and Thierry of Chartres, with whom may be grouped such writers as Adelard of Bath and Hermann of Carinthia, the latter a pupil of Thierry. Thus much has been made clear by Hauréau and others,⁴¹ while the general course of

³⁵ Note, however, the Hermetic citations in Hermann of Carinthia (supra, Chapter III, pp. 57-66); and the question of the first traces of the *Liber de causis*: Duhem, iii. 168; Bardenheuer, *Die pseudo-aristotelische Schrift über Das reine Gute*.

³⁶ E. g., Montpellier MS. 145, ff. 94-102 (= pp. 302-331 of Eyssenhardt's edition), following the *Questiones* of Adelard of Bath.

³⁷ Bodleian, Rawlinson MS. G. 40, ff. 1-30, of the late twelfth century: 'Terra fundata est super stabilitatem suam . . . aut in latitudine declinare aut retrogradiari facit. Explicit.' Dr. Craster, to whom I am indebted for suggestions respecting the contents of this MS., calls my attention to a fragment of the treatise in Bodleian MS. Auct. F. 1. 9 (another MS. of English origin, on which see below, Chapter VI, n. 6), ff. 160-162, entitled 'Liber Yparci de cursu siderum' and beginning at f. 22 v of the Rawlinson MS. Another copy is at Cambridge, McClean MS. 165, ff. 1-16 v. Curiously, the two mentions of Hipparchus in this portion of Martianus (ed. Eyssenhardt, pp. 304, 322) are omitted in the conflated text (Rawlinson MS., ff. 6, 18 v).

³⁸ Rawlinson MS., f. 5: 'Mundus igitur ex quatuor . . .' Cf. note 36 above.

³⁹ On f. 24, the lettering of an omitted figure shows traces of Greek influence: a, b, Γ, d.

⁴⁰ A. Cerval, *Les écoles de Chartres* (Paris, 1895), book iii; R. L. Poole, "The Masters of the Schools of Paris and Chartres in John of Salisbury's Time," in *E. H. R.*, xxxv. 321-342 (1920).

⁴¹ Hauréau, *Histoire de la philosophie scolastique* (1872), i, chs. 16-18; idem, in

the movement has been sketched by Baeumker.⁴² Nevertheless we still lack a detailed study of the range and depth of Platonic influences in this period, as measured in the lesser writers and as manifested in the various anonymous treatises which have not yet been collected or explored;⁴³ nor do we know, apart from the general fact of the school's efforts to harmonize Plato and Aristotle, what reactions the newer knowledge produced upon the older habits of thought.⁴⁴

The decline of this Platonic cosmogony came with the reception of the Ptolemaic astronomy and the Aristotelian physics, as transmitted by the Arabs of Spain. For this it is not easy to give precise dates. Thus at Chartres a manuscript of the cathedral preserves a treatise on astrology containing Arabic words which dates from 1135, with notes added from 1137 to 1141;⁴⁵ and another manuscript of the twelfth century contains Adelard's version of the Khorasmian tables.⁴⁶ Hermann of Carinthia's version of the *Planisphere* was, as we have seen, dedicated to Thierry of Chartres in 1143.⁴⁷ Yet Thierry's *De sex dierum operibus* is a daring piece of Platonism,⁴⁸ and the trace of Aristotelian physics found therein carries us no farther than Macrobius.⁴⁹ Some time before his death ca. 1155⁵⁰ Thierry drew up in his *Eptatheuchon* a summary of the seven liberal arts composed of extracts from

Notices et extraits des MSS., xxxii, 2, pp. 169-186; R. L. Poole, *Illustrations of the History of Mediaeval Thought* (London, 1920), ch. iv; Duhem, iii. 87 ff., 184 ff.; M. Grabmann, *Geschichte der scholastischen Methode*, ii. 407-476; M. De Wulf, *Philosophie médiévale* (1912), pp. 210-217; Ueberweg-Baumgartner¹⁰, ii. 306-327 (1915); A. Schneider, in *Beiträge*, xvii, no. 4, pp. 3-10.

⁴² *Der Platonismus im Mittelalter* (Munich, 1916), and its numerous references.

⁴³ For one example, the Pseudo-Bede, see Duhem, iii. 76 ff. So a treatise of this period on semitones, perhaps by Ralph of Laon, begins 'Quoniam et Macrobius et Platonis auctoritate' (B. N., MS. lat. 15120, f. 41).

⁴⁴ Some one with easy access to the manuscripts ought to attack this problem.

⁴⁵ Chartres MS. 213, ff. 63-141. F. 116 has: 'In hoc anno quando erant anni a nativitate Christi M.C.XXXV. in kal. iulii fuit Venus incensa in Cancro.'

⁴⁶ Chapter II, no. 3.

⁴⁷ Chapter III, no. 5.

⁴⁸ Hauréau, in *Notices et extraits des MSS.*, xxxii, 2, pp. 167 ff.; Duhem, iii. 184 ff.

⁴⁹ Duhem, iii. 188-193; and in *Revue de philosophie*, 1909, pp. 163-178.

⁵⁰ Clerval is much too positive in placing it ca. 1141 on the ground that Thierry ceased to teach about that year.

forty-five authorities, the original, in two large volumes, being still preserved at Chartres.⁵¹ Yet the mathematics and astronomy of the *Eptatheuchon* show no certain trace of the new learning.⁵² The geometry is that of the *agrimensores*, Gerbert, and the Pseudo-Boethius; arithmetic is represented by Boethius and the abacus of Gerland and others, astronomy by the fables of Hyginus and the canons of Ptolemy, followed, it is true, by a set of tables which require closer examination.⁵³ The tone throughout is that of the earlier Middle Ages; even the *Posterior Analytics* is as yet unknown.⁵⁴ The main peculiarity of the school of Chartres lay in its "reverent dependence on the ancients";⁵⁵ it stressed the *trivium* rather than the *quadrivium*, and with the decline of humanism in the second half of the twelfth century its fall was rapid, so that Chartres never became a centre of the new science.

A survival of the school of Chartres may be seen in the *Microcosmographia* which a certain William dedicates to William, archbishop of Rheims from 1176 to 1202, and previously (1164-1168) bishop of Chartres.⁵⁶ Preceded in the manuscript by an astro-

⁵¹ MS. Chartres 497-498, which I examined in 1919. See the detailed account by Charles, *Catalogue des MSS. de la ville de Chartres* (Chartres, 1840), pp. 30-36; the *Catalogue général*, xi. 211-214; Bubnov, *Opera Gerberti*, p. xxvi. Cf. Clerval, *Ecoles*, pp. 221 ff.; and his detailed analysis in *L'enseignement des arts libéraux à Chartres et à Paris d'après l'Heptateuchon de Thierry de Chartres*, read before the Congrès scientifique des Catholiques in 1888, and separately, Paris, 1889. What these writers say of the introduction of Arabic numerals needs to be read in the light of more recent discussion; cf. D. E. Smith and L. C. Karpinski, *The Hindu-Arabic System of Numerals* (Boston, 1911).

⁵² F. 141-141 v, which was once considered a fragment of Adelard's version of Hypsikles, is identified by Bubnov (pp. xxvi f.) as a part of the geometry of the Pseudo-Boethius.

⁵³ There is no basis for Clerval's assumption (*L'enseignement*, pp. 21 f.) that the *Canons* were translated from the Arabic by Hermann of Carinthia; indeed the numerous Greek words in the Chartres text (ff. 174-184) would point to a quite different conclusion. The *Canons* are also in MS. Chartres 214, f. 1, likewise translated from the Greek (Björnbo, in *Archiv für die Geschichte der Naturwissenschaften*, i. 393); the date and author of this version have yet to be determined.

⁵⁴ *Infra*, Chapter XI, nn. 11, 34.

⁵⁵ Poole, *Illustrations*, p. 102.

⁵⁶ Preface and contents in Martène, *Veterum scriptorum amplissima collectio*, i. 946, from a MS. which is now no. 1041 (1267), ff. 3-43, of the Stadtbibliothek at Trier. I have collated the preface by means of photographs, but have not been able

logical table for 1178, the treatise may well have been written in 1177. It is not, as we might expect it to be, a work of astronomy or cosmology, but a comparison of human and animal nature, discussing intelligence, free will, and the senses, and based upon a collection of the *opinionēs antiquorum*, among whom Plato duly figures.

TREATISES ON THE ELEMENTS

Respecting the arrival of the Aristotelian physics the chronological evidence is less definite than in the case of astronomy. The *De physico auditu* makes its appearance as a whole, in versions from both Greek and Arabic, toward the year 1200.⁵⁷ Yet Duhem has shown one of its doctrines, derived through Macrobius, in the *De operibus sex dierum* of Thierry of Chartres,⁵⁸ and we have seen other traces of its teaching still earlier in Adelard of Bath, who seems to have got them through Galen and Constantine the African.⁵⁹ Certainly this was the source for William of Conches, who seeks to reconcile with Plato Constantine's definitions of the elements,⁶⁰ and who cites from Constantine the same passage on the place of the faculties in the brain⁶¹ which Adelard cites from Aristotle. His further references to Johannis and Theophilus⁶² confirm the conclusion that the school of Chartres was acquainted with the early translations of medical writings from the Arabic. To what extent and through what channels the ideas of the *Physics* affected the writers of the latter half of the twelfth century is a problem which awaits investigation. One body of writings may be indicated as a field of inquiry, namely the various treatises on

to secure a rotograph of the whole treatise, which would evidently repay examination. The author cannot be William of S. Thierry (Clerval, *Ecoles de Chartres*, p. 275), who died long before 1176. The *Histoire littéraire* (ix. 70, 191) makes the author William of Soissons. As the archbishop is called legate and not cardinal, the dedication cannot be later than 1179.

⁵⁷ *Infra*, Chapter XI, n. 4; Chapter XVIII, n. 55; Grabmann, *Aristotelesübersetzungen*, pp. 170-174.

⁵⁸ *iii.* 188-193; and in *Revue de philosophie*, 1909, pp. 163-178.

⁵⁹ *Supra*, Chapter II, n. 93.

⁶⁰ Migne, clxxii. 48-55; cf. Baumgartner, in *Beiträge*, ii, no. 4, p. 50. Cf. also Adelard on the elements: *Questiones*, cc. 1-4.

⁶¹ Migne, clxxii. 95.

⁶² *Ibid.*, coll. 50, 93; Duhem, *iii.* 88 f.

the universe and the elements to be found in the manuscripts of this period.

Let us take as an illustration a group of such works in Cotton MS. Galba E. iv of the British Museum, written in different hands of about the year 1200.⁶³ First comes the earlier part of an anonymous work on natural philosophy,⁶⁴ beginning 'Sciendum est quid sit philosophia,' but coming shortly to the four elements as the main topic, with applications to meteorology. The author, who knows a few Greek words⁶⁵ and seems to live in southern Europe,⁶⁶ quotes Seneca, Macrobius, and the Latin poets. He accepts the Platonic doctrine of ideas eternally in the mind of the Creator,⁶⁷ and quotes the *Timaeus* on motion as the origin of the elements;⁶⁸ but his definitions of *physis* and the three species of fire, as well as the dictum of the earth's immobility, are cited specifically from Aristotle's *Physics*.⁶⁹ The treatise breaks off abruptly after six pages of the manuscript.

The lacuna in the codex is likewise responsible for the loss of the beginning of the next treatise, a dialogue in two books between master and pupil, entitled *Liber Marii*.⁷⁰ The first book

⁶³ Ff. 187-204 v. Formerly at Bury St. Edmunds (M. R. James, *On the Abbey of S. Edmund*, Cambridge, 1895, p. 66, no. 154; id., *List of MSS. formerly owned by Dr. John Dee*, Oxford, 1921, p. 29, no. 144). As an indication of date, note that the *ε* with cedilla appears throughout these treatises, which are followed by the so-called *Prenon phisicon* (i. e., Nemesis, infra, Chapter VIII, n. 5) and the *Questions* of Adelard of Bath.

⁶⁴ Ff. 187-189 v.

⁶⁵ 'Quę en noian dicuntur, id est in mente' (f. 187). 'Anastronica, id est sine stellis' (f. 189 v).

⁶⁶ On f. 189 he argues that clouds come from the west and south because the ocean is nearer in that direction.

⁶⁷ F. 187.

⁶⁸ 'Ut dicit Plato in fine nostri translationis inducens similitudinem pistorii instrumenti': f. 187 v; cf. *Timaeus*, c. 52 E.

⁶⁹ 'Ut dicit Aristotiles in phisica (ph'ica) sua, Phis is est naturalis motus alicuius elementi ex se' (f. 187). 'Dicit Aristotiles in phisica sua ignis esse tres species' (f. 188). 'Quod legitur in phi., Terra est immobilis' (f. 188). Cf. *De physico auditu*, 3, 1, 1; 8, 3, 3; 3, 5, 17. The reference on the three species of fire should be to the *Topica*, 5, 5, 11. A more exact quotation of the *Physics* (3, 1, 1) is found on f. 187 v, but without citation of source: 'Phis is proprie est principium motus ex se.'

⁷⁰ Ff. 190-200. Inc. of first page 'aque que est.' F. 194 v: 'et ego subtilius potero respondere. Explicit liber primus. Incipit secundus. D. Iam igitur mihi vellem dari argumenta quod animalia atque virentia et ea quę vocant Sarraceni con-

considers the four elements and their qualities, the second treats of their compounds in the form of "animals, plants, and those things which the Saracens call *congelata*, such as quicksilver, sulphur, and all metals." The compounds include odors and complexions as well as the six metals compounded of quicksilver and sulphur, an interesting early example of the standard alchemical doctrine.⁷¹ The author has travelled widely;⁷² he has written a *Liber de humano proficuo* and promises a succeeding one on the five senses.⁷³ He cites 'ancient books' and other philosophers,⁷⁴ Plato,⁷⁵ and especially the pseudo-Aristotelian *De elementis*, which seems to have been first translated by Gerard of Cremona.⁷⁶

The next treatise, a brief one, is entitled simply *Liber de elementis*.⁷⁷ It cites the opinions of various Greek philosophers, mentions especially Aristotle's fifth element, the ether, and relies on the dictum of Hippocrates that man cannot consist of a single element. The series closes with a *Liber de aere et aquis*, a piece of humoral speculation on climatic conditions, designed especially for physicians,⁷⁸ for whom astronomy is also indicated as useful. The author, evidently a dweller near the Mediterranean in the twelfth century, contrasts particularly the inhabitants of Europe and Asia, with most detail concerning the Turks.⁷⁹

gelata sicut vivum argentum, sulphur, et metalla cuncta . . . ideoque a philosophis minor mundus nuncupatus est. Qui ipsum super huius seculi universa composita sullimavit sit benedictus in secula seculorum amen' (f. 200).

⁷¹ F. 198. Cf. the *Liber de congelatis* translated by Alfred of Sareshel: infra, Chapter VI, n. 47; Thorndike, ii. 250; Pelzer, in *Archivum Franciscanum historicum*, xii. 49 f. (1919). On flavors cf. the fragment "De saporibus" edited by F. Hartmann, *Die Literatur von Früh- und Hoch-Salerno* (Leipzig diss., 1919), p. 55.

⁷² F. 199.

⁷³ F. 200.

⁷⁴ 'Legi quoque in antiquis voluminibus de elementis' (f. 190 v). Cf. ff. 192, 199.

⁷⁵ Ff. 190 v, 199.

⁷⁶ Ff. 192 v, 193 v. On the translations of this work see Steinschneider, *H. U.*, pp. 232 f.

⁷⁷ Ff. 200 v-201 v: 'Elementum in mundo tocius est corporis minima pars . . . alterum ab altero nasci videbis. Explicit.'

⁷⁸ Ff. 201 v-204 v: 'Quisquis ad medicinę studium accedere curat . . . et non errabis a veritate. Explicit liber.'

⁷⁹ F. 204.

The occurrence of these treatises in the same manuscript does not, of course, show any inherent connection, but the internal evidence refers them to the same general age and milieu. Anterior to ca. 1200, they belong to the epoch when Aristotelian science was coming in through Arabic channels but had not yet been fully absorbed. The authors are more interested in physics than in astronomy, at least one of them also cares for medicine, and there are traces of Greek as well as Arabic learning. All this points to southern Italy and Sicily rather than any other part of Latin Europe.

More specifically astronomical is an anonymous treatise of which the first twenty-five chapters are preserved in MS. Lat. 15015 of the Bibliothèque Nationale.⁸⁰ According to the table of contents its forty chapters covered the four elements and their motion, earthquakes and tides and other matters of meteorology, and the motions of the planets. There are many diagrams, but there is nothing very striking in the text.⁸¹ The author quotes authorities sparingly, as in one instance, 'philosophi in libro de rerum natura';⁸² if he does not specifically cite Aristotle's *Meteorology*, he refers to Ptolemy 'in codice de sperarum compositione'⁸³ on the size of the sun, and thus brings us to the close of the twelfth century.

A similar transition to the science of the thirteenth century is seen in a brief tract in the Biblioteca Casanatense at Rome,⁸⁴ perhaps also referable to southern Italy because of its allusions to

⁸⁰ Ff. 200-223 v, of the early thirteenth century: 'Gratia Deo primo sine principio . . . [chapter headings]. Postquam capitula singulatim computavimus, ad unumquodque explanandum ordine accedamus. Primum quod firmamentum est creatum et gubernatum . . .'

⁸¹ F. 203: 'In toto enim mundo non est locus vacuus.' Cf. supra, Chapter II, n. 97.

⁸² F. 206 v.

⁸³ F. 214 v. See *Almagest*, 5, 16. The *Introduction* of Geminus, translated by Gerard of Cremona, seems to have been current under a similar title (Steinschneider, *E. U.*, no. 46(37); Manitius, *Gemini Elementa*, 1898, pp. xviii f.), but I do not find this passage in the edition.

⁸⁴ MS. 2052, ff. 17-18 b (of the early thirteenth century): 'Videndum etiam quid sit philosophia, que eius partes, que sunt partium partes, deinde partium et subpartium executiones . . . ille tamen transeundo per terre venas colantur et sic dulces eunt.'

hot baths and sulphurous flames. After a classification of the sciences, the author takes up the elements, their qualities, and their *passiones*. Dionysius the Areopagite is cited, as well as Lucan, Macrobius, and Seneca's *Quaestiones naturales*. Aristotle is cited once via Macrobius,⁸⁵ once specifically in the *Metaphysics*.⁸⁶

THE MARSEILLES TABLES

In the diffusion of Arabic learning north of the Pyrenees an important part was taken by the cities of southern France. We have already seen Hermann of Carinthia at Béziers and Toulouse,⁸⁷ while Jewish scholars like Abraham ibn Ezra at Narbonne prepared the way for the numerous translations from Arabic into Hebrew made for the Jewish communities of Provence and Languedoc.⁸⁸ Montpellier was a well known centre of astronomy by the thirteenth century, while Marseilles appears at the very outset of the new movement.

One of the earliest attempts to adapt the astronomy of Spain to places north of the Pyrenees is found in the planetary tables drawn up by a certain Raymond of Marseilles in 1140: *Liber cursum planetarum capitisque draconis a Raymundo Massiliensi super Massiliam factus*.⁸⁹ The introduction to this work, it is

⁸⁵ 'Huiusmodi questiones [salt and fresh waters] Macrobius de sñtialibus [sic] movet et solvit secundum Aristotilem' (f. 18). Cf. Macrobius, *Saturnalia*, 7, 13, 19 (ed. Eyssenhardt, p. 448), where the reference is apparently to the *Problemata*.

⁸⁶ 'De actionibus elementorum de quibus Aristotiles in metaphisicis egit nunc inspiciendum est' (f. 17 v).

⁸⁷ Supra, Chapter III.

⁸⁸ Renan, in *Histoire littéraire*, xxvii. 571-623; Steinschneider, *H. U.*, *passim*; id., in *Abhandlungen zur Geschichte der Mathematik*, iii. 57-128; Duhem, iii. 298 ff.

⁸⁹ This is the title in MS. 243 of Corpus Christi College, Oxford, ff. 53-62 (saec. xv), which lacks the tables and begins with 166 verses:

O qui stelligeri cursus moderaris Olympi
Sideribus septem contra labentibus orbem

.

Ergo lectorem prius hoc novisse iubemus
In media quod principium sit nocte diei
Atque quod in simili sit finis parte sequentis,
Et domini nostri Ihesu Christi super annos
Massiliamque super nos hunc componere librum

true, bears the date 1111, or 1106, but that this is a scribe's error for 1140 (MCXI for MCXL) appears in a specific reference to a debate of 27 October 1139⁹⁰ as well as in the content of the tables themselves.⁹¹ Their purpose is to adjust the tables of Toledo to the use of Latins in general and the author's own Marseilles in particular:⁹²

Cum multos Indorum seu Caldeorum atque Arabum quos in astronomia plurimum valuisse cognovimus⁹³ cursuum planetarum⁹⁴ libros aut super Arin civitatem, que in medio mundi rectissime fore constructa memoratur, aut super Meseram et super annos mundi seu Grecorum aut Gezdaheirt edidisse vidissemus, novissime autem quendam Toletanum hac in arte⁹⁵ perspicuum, qui a quibusdam Azarhel vel Albatheni nuncupatur, super annos Arabum et super Toletum, que a nostra civitate, id est Massilia, per horam et alterius partem decimam distat, cursuum similiter librum fecisse comperissemus; non indignum esse⁹⁶ credidimus super annos domini Ihesu et super prefatam civitatem nostram librum constituere, et quoniam⁹⁷ nos primi Latinorum fuimus⁹⁸ ad quos post Arabum translationem hec scientia pervenerat et⁹⁹ aliquid utilitatis ex nostro labore cunctis Latinis administrare haud absurdum videbatur, opus presens aggressi sumus [atque predictum Toletanum in eo imitati sumus].¹⁰⁰ Constituimus ergo in eo radices¹⁰¹ .vii. planetis capiti atque caude¹⁰² draconis super mediam noctem quam

Senciat; est illic que nostre gentis origo.
Natalemque locum nostro de numero clarum

Carminibus finem facio; laus omnipotenti
Sit Domino nostro qui regnat trinus et vivus.

Amen.

Anonymous and without title and preliminary verses in B. N., MS. Lat. 14704, ff. 110-135 v; fragment at Cambridge, Fitzwilliam Museum, McClean MS. 165, ff. 44-47, a MS. anterior to 1175, in which this treatise is entitled "Liber cursuum planetarum .vii. super Massiliam." See Duhem, iii. 201-216; and, for astrology, Thorndike, ii. 91 f. The fulness of Duhem's discussion makes detail unnecessary, but he knew only the anonymous B. N. MS.

⁹⁰ Corpus MS. 243, f. 56; MS. Lat. 14704, f. 111; Duhem, iii. 207. The Corpus MS. (f. 55) has a further corruption in the principal date: 'M°. C°. VI°.'

⁹¹ Duhem, iii. 203 f.

⁹² MS. McClean 165, f. 44, which begins here; MS. Lat. 14704, f. 116; Duhem, iii. 211 f. The Corpus MS. stops just before this passage.

⁹³ MS. Lat. *cognovissemus*.

⁹⁷ MS. Lat. inserts *quia*.

⁹⁴ MS. Lat. om.

⁹⁸ MS. Lat. *fueraimus*.

⁹⁵ MS. Lat. *doctrina*.

⁹⁹ MS. Lat. om.

⁹⁶ MS. Lat. om.

¹⁰⁰ MS. McClean omits the words in brackets.

¹⁰¹ MS. McClean *radicem*.

¹⁰² MS. Lat. *atque capiti draconis*.

sequebatur vii^a feria kalendarum ianuarii qua ingressus est annus Latinorum in quo Dominus incarnatus est, et super Massiliam que ab Arin, cuius tam latitudo quam longitudo nulla est, trium horarum spatio distat.

The author, whose piety is evident, is at some pains to justify the study of the stars and their influence on human affairs by reference to the Bible and by copious quotations from Lucan. He quotes the Fathers — Ambrose, Augustine, and Gregory — Hippocrates and Galen, Ovid, Priscian, and Boethius, giving evidence of a considerable Latin culture in the astronomical portion as well as in the mythology and geography of the introductory verses. If he does not cite by name Plato and Macrobius, he discusses briefly the world-soul. Besides al-Zarkali and al-Battani, his Arabic authorities are the astrologers Albumasar, Alcabitius, and Messehalla, from whom he promises extracts not found in our MSS. He inveighs against certain incorrect planetary tables and apocryphal works ascribed to Ptolemy, and he has himself written a treatise on the astrolabe to which he makes frequent reference. His own attainments are respectable. "He is," says Duhem,¹⁰³ "an astronomer not only because he is abreast of the most delicate and most recent discoveries, such as al-Zarkali's discovery of the proper movement of the sun's apogee, but he also shows himself an astronomer by his sound ideas concerning the methods of observation and the corrections which they require."

Raymond declares himself the first of the Latins to acquire the science of the Arabs, in evident ignorance of the work of Adelard of Bath and Plato of Tivoli. Moreover he describes his debate of 1139 with two masters who possessed incorrect tables,¹⁰⁴ but he does not say that these were Latins or where the debate took place.¹⁰⁵ In 1194 Maimonides addresses his treatise on astrology to certain Jews of Marseilles.

A CRITIC OF MACROBIUS

The decline of the older astronomy can be seen from another angle in a treatise on the planetary spheres contained in a manu-

¹⁰³ iii. 208.

¹⁰⁴ MS. Lat. 14704, f. 111; MS. Corpus 243, f. 56.

¹⁰⁵ For later astronomers at Marseilles see Steinschneider, in *Bullettino*, xvii. 775 f., xx. 575-579; P. Tannery, in *Notices et extraits des MSS.*, xxxv, 2, pp. 561-640; Duhem, iii. 287-291; Thorndike, ii. 92 f., 206, 211, 485-487.

script of Cambrai.¹⁰⁶ This codex, of the later twelfth century, begins as follows, as if it were a translation of Maimonides:

Incipit liber Mamonis in astronomia a Stephano philosopho translatus

Quoniam in canonem astronomiæ quas proposueramus regularum exsequito tractatu promissum exsolvimus, secundum hoc opus licet arduum et subtilissimo ac multiplici naturæ celatum archano non inconsulta aut impudenti temeritate sed frequenti et animi et utilitatis ammonitione aggredior. Sic enim licet magnorum super his gravissimorumque disputatio philosophorum, tamen mediocres persepe maxima quemadmodum maiores curant minora. Illud quoque attendendum est plurimum quod, cum omnis a Deo fit sapientia, ea autem verior et sine scrupulo fallaciæ concessa sit nemo noverit. Unde et qui graves habentur philosophi sepe extra se maximis in rebus eorundemque verius et perspicacius alios qui nec philosophiam adepti essent nec ad eam aliquando posse pertingere existimaverent [*sic*] de divini muneris larga benignitate hausisse noticiam comperimur. Testes sunt Plato et Aristotiles quos omnium liberalium artium fere magistros habemus. Quorum Plato in multis a veritate dissonat, Aristotilis mundum non esse a Deo conditum de nichilo sed cum eo sicut nunc est tamquam cum corpore umbram processisse et condidit et argumentis fallacibus conatur asserere, eo nimirum in loco intellectus et animi et oculorum privatus officio qui fidelium simplicitati divina nascitur misericordia. Idem ipse in hac de qua proposita est disputatio questione cum de celestibus speris dissereret, octo positus de nona non, ut quidam arbitrantur, consulto tacuit sed se ad eius noticiam nequaquam pervenisse manifestum nobis reliquit testimonium. Quod nullatenus arroganter dictum cuiuspiam videri velim et quod tantæ gravitatis et scientiæ et ex eisdem auctoritatis adepte philosophus ignorasse dicitur me non latuit. Nam etsi inter maximos locum non obtineam, ad eosdem tamen aspirans mediocrium invasi disciplinam. Habet enim ille sua quibus plurima consumpta opera perpetuitatis dum philosophantes vixerint nomen adeptus est quorum tamen pluraque a maioribus omnia autem a Deo preter obfuscata falsitatis errore accepit. Quare nobis quoque, qui nichil aliis derogamus, si quidem idem omnium ditissimus Deus annuat invideri dedecet, cum ab eo accepta alios docere quam ignavie silentiæ tegere malumus. Hæc autem ideo quia nisi tanta foret obtreptantium multitudo ferociores habuisset latinitas auctores fertiorque apud nos philosophiæ seges pullularet. Cum etenim plurimi essent exercitus detrahentium pauci qui benigne susciperent, pauciores certe artium scriptores magis exterrebantur multitudinis immanitate quam adunarentur aliquorum benigno studio. Unde factum est ut que fere plenitudinem posset habere artium nunc ceteris gentibus Europa videatur humilior, quippe que quos educat contra fontem scientiæ sepius oblatrantes sentit sibi ipsis rebelles nunc hæc nunc illa nunquam consona ruminantes. Quæ res

¹⁰⁶ MS. 930 (829), 49 folios, formerly belonging to the cathedral. It breaks off before the end of the treatise, but evidently not long before. On the fly-leaf a hand of the fifteenth century has written, 'Quidam tractatus de astronomia .xxii.'

tantum attulit litteralis scientię odium ut a quibus summe venerari debuerat rerum ¹⁰⁷ rectoribus summe odiretur. . . .

(f. 2 v) Quoniam autem in canonis regulis multa tetigimus que in hoc opere explicari desiderant, promissum preterire consilium non fuit, ut quod illic dubietatis scrupulus fastidium generaverit hoc ¹⁰⁸ operis beneficio sopiatur. Atque hec est ratio que me maxime ad hoc opus coegit ne autem anxium ¹⁰⁹ lectorem a studio repulsum iri paterer nostratumque utilitati quoad posse consulerem neve quod pollicitus fueram aut ignorasse aut inertia neglexisse arguerer. Placet igitur celestium sperarum circulos numerum ordinem quo verius potero quantumque humana patitur ratio aperire, ut qui a Ptholomeo in sua sinthasi disponuntur circuli in speris etiam quo modo possint inveniri laborantibus in hac arte via teratur. In quo nichil enim perfectum mihi vel cuiquam ad explicandum concessum arbitror, siquid pretermissum superflueve positum fuerit sapientium arbitrio corrigendum relinquo.

Mundus nomen est ad placitum per quod omnia fere que condita sunt designantur, forma eius rotunda atque speralis . . .

Starting from the solid sphere of the earth as the centre of the spherical universe, the author explains that the earth is immovable and the heavens revolve about it. He knows nothing of the surrounding sea ¹¹⁰ but argues briefly concerning the source of the Nile; whence he passes quickly to the nine heavens which constitute his main theme. The greater heat of the sun in summer is due to its nearness, not, as the Aristotelians think, to the angle of its rays.¹¹¹ He has himself tested the effect of the full moon on the weather.¹¹² Throughout the first book, as for example, on the zodiac, there is a running criticism of Macrobius, concerning whom he thus expresses himself in the preface to book ii: ¹¹³

In astronomie mihi suscepta disputatione laboranti, de qua pauca certe habet latinitas eorumque pleraque erroris obfuscata caligine, obici fortassis animus doctis poterit arrogans in invidia quod in Macrobiū inter philosophantes non mediocrem tociens acrius invehar, eoque amplius quod usque ad hec tempora omni caruerit obtreactionis livore. Quibus vellem satis

¹⁰⁷ *p* apparently erased after *rerum*. ¹⁰⁸ *h'* for *huius*? ¹⁰⁹ MS. *anexium*.

¹¹⁰ 'Et de mari quidem quod quo ambitus quibusve locis terram circumfluat incertum habeo preter id quod septentrionales norunt habitatores, de quibus quoniam apud illos sepe dictum est taceamus' (f. 5).

¹¹¹ 'Nam et hos qui more solis super terram causam imponunt plurimum errasse et Aristotelicos qui motui radii tantum a veritate deviasse videmus' (f. 10 v).

¹¹² 'Nam in estate, quod ego id compertum habeo, pleniluniam noctem humidiorē esse et frigidiorē, sinodalem vero diem minus calidum et siccum' (f. 12 v).

¹¹³ Ff. 15-15 v. On the influence of Macrobius prior to the reception of Arabic astronomy, see Duhem, iii, ch. 3.

esset mea cognita voluntas intelligantque me latine tradere facultati nostratum incognita auribus archana, que cum frequentibus vigiliis diuturnis cogitationum recessibus exquisita comparaverim quorum Macrobius aut inscium fuisse video aut intellecta perversa depravasse exponere.¹¹⁴ Horum alterum cum ad filium suum, quem sapientia sua sapienterem fieri vellet, scriberet fuisse dicendum non est, nemo enim dilectum sciens perverse instruit. Non igitur intellecta veraciter depravasse sed non intellexisse potius et ignorasse iudicandum est. Quam ob rem non mihi in huius artis peritia philosopho sed cum inscio contencio est. . . . In Macrobius igitur nostra idcirca maior est animadversio quoniam apud nostratum opinionem ceteris ipsum copiosorem in astronomia et sentio et relatum per quam plurimos est.

In the second book we find the usual division into climates, and the common view that the habitable globe lies between fixed parallels.¹¹⁵ The third book takes us further into the subject by discussing the spheres of moon and sun and their eclipses; the fourth, 'De retrogradacione,' considers the spheres of the planets as well as the eighth sphere of the fixed stars and the ninth which he calls *aplanos*. Naturally the author does not accept the Macrobian theory of the rotation of Venus and Mercury about the sun. He loves geometry, especially geometrical proofs 'unknown to the Latin world,'¹¹⁶ and these are accompanied by good diagrams.¹¹⁷ Ptolemy is always cited with respect,¹¹⁸ the *Almagest* specifically as the *Sintaxis*.¹¹⁹ The author calls himself a Peripatetic, but disagrees frequently with the Aristotelians.¹²⁰ The other authorities are not cited by name,¹²¹ save the much criticized Macrobius, but the author's indebtedness to an unnamed Arab writer is mentioned in the preface to the fourth book:¹²²

¹¹⁴ Probably for 'expositione.'

¹¹⁵ Ff. 5 v, 22, 31 v.

¹¹⁶ *Infra*, p. 102. 'Deprehensum est enim a quodam sollertissimo et astronomie scientie peritissimo philosopho geometricali argumentatione' (f. 37 v). 'Id ita esse ut aiunt verissimis ostenditur in libro geometrie rationibus' (f. 7 v).

¹¹⁷ Ff. 4 v, 26 v, 27 v, 30 v, 31 v, 32, 35, 36, 38 v, 43 v, 45 v, 47 v, 48.

¹¹⁸ 'Tholomeus in astronomia magnificus . . . hec in libro quem de habitatione dixit scripta sunt. Michi vero tametsi difficillimum videatur, credendum tamen estimo eius philosophice traditioni quam et multarum constat rerum experientiam habuisse et antiquorum scriptis et sui temporis hominum relatione multa que nobis incognita sunt certo cognovisse' (f. 22 v). See also ff. 27 v, 29 v, 30, 49 v.

¹¹⁹ Ff. 29 v, 49 v; cf. the preface above.

¹²⁰ 'Neque enim Epicurum aliquando dogma audivimus sed peripatetice potius accedimus claritati' (26 v). On the Aristotelians see f. 10, 10 v.

¹²¹ Cf. n. 116 and the preface to book iv, below.

¹²² F. 38-38 v.

Quartus hic laboris nostri decursus de .e. planetarum speris et circulis et octava denique nona spera disserens transcurso maris alto funere anchore portus tranquillo attinget. Verum cum in aliis Arabem quendam plurimum secuti sumus, in hoc quoque per multum sequimur, licet quedam de sperarum numero et rotunditatum invenerimus et de circulis quidem et inclinationibus planetarum vera perstrinxit a quibus sperarum numerus dissonat. Hoc autem suis in locis aperte monstrabitur. . . . Non enim parva apud Latinos diutius inquivit questio quonam modo erraticorum .e. globi quorum natura indictus cursus in orientem est fiant retrogradi et ab oriente relabantur in occiduas partes. Et hec quidem, ut verum fateamur, questio digna est et proponi et solvi sed a nemine tamen eorum absoluta. Nec hoc mirum ducimus, cum occulta sit res et geometricalibus exquisita et aprobat argumentis quorum latinitas inscia indivulgato diu multumque volutatur errore. . . .

There are, however, no Arabic terms of any sort, while words like *exlasis*,¹²³ *sinlaxis*, and *panselinus*¹²⁴ point to some use of Greek sources or works derived therefrom. Diagrams are lettered *abcdef*, not *abgdez* as in the case of mechanical transfers from the Greek, but there is a curious system of numerals by which the letters of the Roman alphabet are given a numerical value in succession like the Greek.¹²⁵ Thus in the extract printed above *e* is used for the five planets, and we likewise find *g* for the seven climates¹²⁶ and *ld* for twenty-four hours.¹²⁷ The higher numbers have caused some confusion to the copyist, but the following may serve as an example, in which *k* = 10, *l* = 20, *i* = 100, *u* = 200, etc.:¹²⁸

Que spatia cuius sint proportionis ita videbimus: Inter terram et lunam .a gradus esse concedamus. Duplum a terra usque solem, id est .b. Triplum huius a terra ad Venerem, id est .f. Quadruplum autem huius ad Mercurium, id est .l.d. Novies .l.d. usque Martem que sunt .u.k.f. Octies autem ducenta .k.f. usque Iovem, scilicet mille septingenti .l.h. Qui vices septies multiplicati spatium a terra usque Saturnum reddunt .qcy.y.g.¹²⁹ et de quibus sublati .i.u.p.a. scilicet spatio a terra usque Iovem remanet a Iove usque Saturnum

¹²³ F. 3. ¹²⁴ 'Paranselinio (*sic*) quod nos plenilunium dicimus' (f. 34).

¹²⁵ I have not found this system elsewhere, unless it is the one found by Friedlein in MS. Erfurt 1127: *Die Zahlzeichen und das elementare Rechnen der Griechen und Römer* (Erlangen, 1869), p. 20.

¹²⁶ F. 22 v.

¹²⁷ F. 23.

¹²⁸ Ff. 27 v-28. So (ff. 8, 17) .xp. is used for the 360° of a circle, half of which is .tr. For the distances in the passage here printed cf. Macrobius, *In Somnium Scipionis*, 2, 3, 13 (ed. Eyssenhardt, p. 584).

¹²⁹ What I have represented by *y* resembles rather the early western form of 5, and the *et* may also be a numeral. The numbers from this point up I must leave to some one else to interpret. As far as 1728 the system is clear.

q^a.q^a.p.a. Sublato de spatio Iovis spatium Martis restat a Marte *i.g.i.p* usque Iovem, sic de reliquis. Cum igitur spatium a luna usque solem *.a.* gradus, a sole ad Venerem *.d.*, ad Mercurium *k.h.*, a Mercurio ad Martem *t.s.b.*, a Marte ad Iovem *i.g.i.p.*, a Iove ad Saturnum *q^a.q^a.q.p.a.*, cui reliquis omnibus spatiis iunctis prior surgit numerus. Que spatiorum assignatio multis rationibus improbat. Si enim est ut idem dicit una eademque omnium celeritas, duplo temporis sol suum peragraret circulum quo luna suum circuit, duorum et enim circulorum si alterius diametrum duplum sit diametro alterius et circuli sic se habent. Peragraret igitur, si vere essent assignata spatia eademque citatio, sol *b* mensibus totum zodiacum, Venus *.f.*, Mercurius *.l.d.*, Mars *.u.k.f.*, Iupiter *t.n.d.* annis, Saturnus *.ψ .a.a.d.* annis et *.b.* mensibus. Que cum ita sint, aut falsa est sperarum assignatio aut celeritas non erit eadem.¹³⁰

It is by this time plain that what we have is no translation of Maimonides or any one else, but an independent work using authorities but following consistently its own line of argument. The author has already written *Regule canonis*. His present purpose is to introduce a more correct astronomy into the Latin world, which is still in fog and darkness. He is plainly a Latin, citing Lucan and Cicero,¹³¹ with bits of classical lore like the story of Solon's travels,¹³² mentions of Caesar and Constantine,¹³³ and references to the Epicureans and Peripatetics.¹³⁴ As his doctrines are thought new and Macrobius is his chief enemy, he still belongs to the period of the first reception of the new astronomy, when Platonism is still in the ascendant and Arabic learning is just arriving. Whether the name Stephen in the title has any more value than the reference to Maimonides, must remain an open question. The combination of Greek and Arabic influences points toward Sicily, though Stephen of Antioch is also a possibility.¹³⁵

TRANSLATIONS OF PTOLEMY

With the translation of Ptolemy's *Almagest* into Latin the fullness of Greek astronomy reached western Europe. The *Μαθηματικὴ Σύνταξις* of Ptolemy was for all subsequent times the most

¹³⁰ On f. 48 v we have: 'Compleatur enim Saturni lati motus in .l.i. annis, .e.d. diebus, .k.e. horis, horarum sex. .l.d.; Iovis autem annis .k.a., x.k.e diebus, horis .k.d., horarum sex .l.i.; Martis vero anno uno, diebus .x.l.b., horis .l.d.; ac Veneris et Mercurii anno uno, horis .e., sex. horarum .n.i.'

¹³¹ Ff. 5 v, 13 v, 27.

¹³² F. 27.

¹³³ Infra, Chapter VII.

¹³⁴ F. 15 v.

¹³⁵ F. 26 v.

important work of ancient astronomy, summing up, as it did, the labors of Ptolemy and his Alexandrine predecessors in systematic and comprehensive form, and in the Middle Ages it possessed supreme authority as the source of all higher astronomical knowledge. In 827 it was translated into Arabic, and among the Saracens it passed as a divine and preëminent book, about which there grew up a large body of explanatory literature.¹³⁶ Indeed the name by which it was generally known, *Almagest*, has been explained as a superlative title, *al meğisth*, though recent writers are inclined to make it a corruption of *meğālĥ sūntağis*.¹³⁷ In the Latin Europe of the twelfth century Ptolemy's results became known at first indirectly, in the compends of al-Fargani and al-Battani; and even after his great work was translated, an abridgment, the so-called *Almagestum parvum* of ca. 1175-1250, replaced it for many readers.¹³⁸

The first Latin version of the *Almagest* itself has commonly been placed in 1175, the date attached to the translation from the Arabic made in Toledo by Gerard of Cremona.¹³⁹ It is now known, however, that a rendering was made from the Greek in

¹³⁶ On the place of the *Almagest* in the history of astronomy and mathematics, see R. Wolf, *Geschichte der Astronomie* (Munich, 1877), pp. 60-63; Cantor, i. 414-422; P. Tannery, *Recherches sur l'histoire de l'astronomie ancienne* (Paris, 1893); Steinschneider, "Die arabischen Bearbeiter des *Almagest*," in *B. M.*, 1892, pp. 53-62; and in *Zeitschrift der deutschen morgenländischen Gesellschaft*, l. 199-207 (1896); Manitius, introduction to his German translation (Leipzig, 1912); Duhem, i. 466 ff.

¹³⁷ Brockelmann, *Geschichte der arabischen Litteratur* (Weimar, 1898), i. 203.

¹³⁸ On the date of the *Almagestum parvum*, see Nallino, *al-Battani*, p. xxviii; Birkenmajer, *Biblioteka Ryszarda de Fournival* (Cracow, 1922), pp. 29-34. For citations from the *Almagest* in 1143 by Hermann of Carinthia, see Chapter III, n. 61. The extract in MS. Chartres 214 is in a later hand: Suter, *al-Khwarizmi*, p. 16.

¹³⁹ On Gerard see Chapter I, supra. The evidence for this date is found on the last folio of a thirteenth-century MS. of Gerard's translation in the Laurentian (MS. lxxxix. sup. 45; cf. Bandini, *Catalogus*, iii, col. 312): 'Finit liber Ptholomaei Pheludensis qui grece megaziti, arabice almagesti, latine vocatur vigil, cura magistri Thadei Ungari anno domini millesimo .c.lxxv°. Toleti consummatis [sic], anno autem Arabum quingentesimo .lxx°. [then a blank of about the space of six letters] mensis octavi .xi°. die translatus a magistro Girardo Cremonensi de arabico in latinum.' The two computations agree, and the date has been generally accepted (Wüstenfeld, p. 64; Rose, in *Hermes*, viii. 334; Cantor, i. 907; Steinschneider, *H. U.*, p. 522), but Steinschneider in his latest reference to it inserts an interrogation point (*E. U.*, no. 46 (36)).

Sicily about 1160; first discovered in 1909, this is described at some length in a later chapter.¹⁴⁰ Moreover, while the version of Gerard of Cremona was the one to pass into general circulation, other translations, or partial translations, of the *Almagest* were made, although in each case the date and author are unknown.¹⁴¹ For purposes of comparison let us begin with Gerard's rendering. First comes certain prefatory matter peculiar to the Arabic text: the biography and maxims of Ptolemy ('Quidam princeps¹⁴² . . .'), and the account of the translation into Arabic under al-Mamun. Then the first book begins:¹⁴³

Capitulum primum. In quo huius scientię ad alias excellentiam et finem eius utilitatis dicam.

Capitulum secundum. De ordinibus modorum huius scientię.

Capitulum iii. Quomodo scitur quod motus celi sit spericus.

Capitulum iiiii. De eo quod indicat quod etiam terra sit sperica.

Capitulum v. De eo quod indicat quod terra sit in medio cęli.

Capitulum vi. De eo quod indicat quod terra sit sicut punctum apud celum.

Capitulum vii. Quod terra localem motum non habeat.

Capitulum viii. Quod primi motus qui sunt in celo sunt duo primi motus.

Capitulum ix. De scientia partium cordarum circuli.

Capitulum x. De modo quo tabule arcuum circuli et cordarum eius fiunt.

Capitulum xi. De positione arcuum et cordarum eorum in tabulis.

Capitulum xii. De arte instrumenti quo scitur quantitas arcus qui est inter duos tropicos.

Capitulum xiii. De scientia quantitatis arcuum qui sunt inter orbem equationis diei et inter orbem medii signorum qui est declinatio.

Capitulum xiiii. De scientia quantitatis arcuum equationis diei qui elevatur in spera directa cum arcubus orbis signorum datis.

Ecce ubi initium primi capituli prime distinctionis dedit:

Bonum, Scire, fuit quod sapientibus non deviantibus visum est cum partem speculationis a parte operationis diviserunt, que sunt duę sapientię partes. Licet enim contingat ut operatione sit speculatio prius, inter eas tamen non parva existit differentia, non solum, et si quorundam morum honestatem possibile sit pluribus hominum inesse absque doctrina, tamen non tocius scientiam absque doctrina comprehendere est possibile, verum etiam quia plurimum utilitatis consistit aut in opere propter plurimam perseverantiam agendi in rebus aut in scientia propter augmentum in scientia.

¹⁴⁰ *Infra*, Chapter IX.

¹⁴¹ Manitius, pp. xii ff., is unsatisfactory on the mediaeval versions.

¹⁴² See Boncompagni, *Gherardo*, p. 400; cf. the description of MS. Vat. lat. 2057 in the printed catalogue.

¹⁴³ MS. lat. 14738, f. 1. For the version of the preface from the Greek, see below, p. 163.

Qua propter nobis visum est expedire nobis ut sciamus metiri operationem cum doctrina principiorum eius que reperiuntur in imaginatione et intellectu, ne quid desit ex inquisitione tocius pulchre rei decentis forme secundum mensurationis bonitatem neque in minimis rebus neque in vilibus, et ut expendamus plurimum nostri oculi et plurimum nostri studii in disciplina scientiæ magne et excelsæ et precipue que nominatur scientia. O quam bonum fuit quod Aristotiles divisit theoricam, cum eam in tria prima genera distribuit, in naturale, doctrinale, theologicum! Generatio namque omnis generati ex materia est et forma et motu, neque est possibile ut in aliquo noto horum trium solum per se singillatim stans absque alio videatur, possibile tamen est ut unum absque alio intelligatur. Quod si quis scire querit que sit prima causa primi motus, affirmabitur ei cum illud secundum ordines suos fuerit declaratum quod est Deus invisibilis et immobilis. Species autem theoricæ qua inquiritur perscrutatio qua scitur quod est in suprema altitudine ordinum mundi nominatur theologica, et hoc quidem intelligitur separatum esse a substantiis sensibilibus. . . .

The most interesting body of evidence respecting other versions is found in a manuscript in the Landesbibliothek at Wolfenbüttel, MS. Gud. lat. 147.¹⁴⁴ This codex, of the thirteenth century, contains first, after the fly-leaf, without heading (f. 2) the preface to the Sicilian version of the *Almagest* from the Greek. On f. 3 we have the Ptolemaic maxims ('Conueniens est intelligenti . . .') which ordinarily accompany the biographical material ('Quidam princeps . . .') in the version of Gerard of Cremona, followed by Gerard's version of Ptolemy's preface, headed 'Alia translatio primi capituli.' On f. 3 v comes the biography as translated by Gerard and his rendering of the chapter headings of the first book. Then on f. 4 begins a quite different version of the preface from the Arabic as follows:

Bonum quidem fecerunt illi qui perscrutati sunt scientiam philosophiæ, Iekirie,¹⁴⁵ in hoc quod partiti sunt partem philosophiæ speculativam ab activa. Sed, quamvis activa antequam sit activa est speculativa, tamen quod inter eas de diversitate reperitur est magnum. Non propterea¹⁴⁶ quod quasdam bonas virtutes animales possibile est esse in multis hominum sine doctrina, sed ad scientiam omnium rerum speculativarum non est possibile aliquem pervenire absque doctrina,¹⁴⁷ sed tantum propterea quod perducens

¹⁴⁴ The description in the printed catalogues is too meagre to be of service: F. A. Ebert, *Bibliothecæ Guelferbytanæ codices Graeci et Latini classici* (Leipzig, 1827), no. 733; O. von Heinemann, *Die Hss. der herzoglichen Bibliothek zu Wolfenbüttel* (Wolfenbüttel, 1913), ix. 163. I have examined the codex by specimen photographs.

¹⁴⁵ 'Id est, O domine Frire' above the line.

¹⁴⁶ MS. *propterea* quod.

¹⁴⁷ MS. *doctrina* tantum.

ad finem quesitam in parte quidem activa est multitudo assiduationis super operationem et in parte quidem speculativa additio speculationis. Et propter illud vidimus quod oportet ut sit rectificatio operationis illud quod credimus per mentes nostras ut non recedamus nec in paucis ex rebus a consideratione perducente ad dispositionem pulchram ordinatam et ponamus plurimum nostre occupationis in inquisitione scientie rerum speculatarum propter multitudinem earum et superfluum bonitatem ipsarum et proprie in rebus quibus proprium est ut nominentur doctrinales. O quam bonum quod divisit Aristotiles partem speculativam cum divisit eam in tria prima genera, naturale, disciplinale, et divinum! Quoniam essentia omnium rerum ex materia est et forma et motu, et non est possibile ut sit una rerum trium secundum singularitatem inventa actu, et est iam possibile ut intelligatur unaqueque earum absque alia. Causa igitur prima motui totali primo quando cogitamus motum simplicem videmus quod est Deus qui non videtur neque movetur, et nominabimus hanc speciem inquisitionem de Deo nostro. Et hanc quidem intelligentiam intelligimus in altiore altitudine rerum tantum seiunctam penitus a substantiis sensatis . . . quod primi non comprehenderunt nec consecuti sunt ex eius comprehensione quod oportet.

Then with the second chapter this version is abandoned for Gerard's, which seems to be used thereafter. The beginning of book iv, which I have compared, has the ordinary text of Gerard, and the manuscript closes on f. 161 with Gerard's version (13, 11):¹⁴⁸

Quia igitur iam consummavimus has intentiones et perfecimus omnia ad quorum scientiam necessarium est invenire in hoc libro, secundum quantitatem status nostre scientie et summe nostri consilii preter extranea eorum, secundum quantitatem qua adjuvit nos tempus quod pervenit ad nos ad inveniendum id cuius est inventio necessaria ex illo et premitendum id cuius est necessaria premissio et verificatio eius ex eo, et secundum quod sit quod scripsimus inde conferens in hac scientia preter quod inquiramus per ipsum prolongationem et abbreviationem, tunc iam sequitur et honestum est ut ponamus hoc finem libri.

Finit liber Ptolomei Pheludensis qui grece megasin. arabice ALMAGESTI latine maior perfectus appellatur.

This, however, is not the whole story, for there are frequent marginal notes containing extracts from a version, or paraphrase, out of the Arabic which is not that of Gerard. Thus at the beginning of book iv the text has:¹⁴⁹

Iam narravimus et demonstravimus in dictione que est ante hanc totum quod contingit in motu solis, et postquam illud incipere volumus secundum

¹⁴⁸ Cf. Boncompagni, *Gherardo*, p. 401.

¹⁴⁹ F. 38 v (= MS. lat. 14738, f. 55). For the Sicilian version, see Chapter IX, n. 9; for the Greek rendering of the Dresden MS., *Hermes*, xlv. 216.

quod sequitur loqui de motu lune videmus quod primum per quod oportet nos illud inquirere est ex considerationibus. . . .

This is Gerard's version, but the margin reads:

Quia in tractatu qui est ante hunc pervenimus super omnia que inveniuntur comitari in motu solis, assumpsimus in hoc tractatu in eis que sequuntur illud et coniunguntur illi ex sermone in luna primum ergo quod videmus oportere ut ab eo inciperemus loqui in hoc. . . .

We thus see that the scribe of the Wolfenbüttel manuscript had before him in the thirteenth century not only Gerard's version and the preface at least of the Sicilian version, but a third version of at least the prefatory chapter and, apparently, of the passages which he inserts in the margin. This third form of the preface is also found in a manuscript of Gerard's version at Madrid,¹⁵⁰ and as this codex is of the early thirteenth century and comes from the cathedral library of Toledo, we can infer that the third version is anterior to this date and probably of Spanish origin. The preface also occurs at the close of a copy of Gerard's version in the Vatican, MS. Vat. lat. 2057, also of the thirteenth century.¹⁵¹ There is as yet no clue to the translator. The statement that this version was made from the Arabic under Frederick II¹⁵² seems to have arisen from a combination of the misunderstood Sicilian preface with certain notes of the year 1230 in another hand on the fly-leaf of the Wolfenbüttel manuscript. No translation under Frederick II is known save that into Hebrew by Jacob Anatoli.¹⁵³

If we thus have a second version from the Arabic, there is also

¹⁵⁰ Biblioteca Nacional, MS. 10113 (Hh. 89), where we have, after the 'Quidam princeps,' the Wolfenbüttel preface (f. 1 v: 'Bonum quidem') followed by Gerard's preface and version complete and ascribed to him. Cf. Octavio de Toledo, *Catálogo de la librería del cabildo Toledano* (Madrid, 1903), no. 335 (469). The 'Bonum quidem' preface also appears on the last folio of the *Notule almagesi* in the library of the Academia de la Historia, Est. 11 gr. 1^a, MS. 22 (saec. xiii).

¹⁵¹ See Nogara's printed catalogue.

¹⁵² Manitius, i, pp. xii f., 459, citing a note of von Zach in 1813 which I have not seen. Birkenmajer, *Vermischte Untersuchungen (Beiträge, xx, no. 5)*, p. 21, saw that this MS. contained the Sicilian version but did not know that this was confined to the preface.

¹⁵³ Steinschneider, *H. U.*, p. 523. The statement that a version was made under Frederick II is found as early as 1741 (Boncompagni, *Gherardo*, p. 402) and became widely current (Steinschneider, *E. U.*, no. 177).

evidence of a second version from the Greek,¹⁵⁴ for a manuscript of ca. 1300 in Dresden, formerly the property of the Dominicans of Cologne, contains a quite different rendering of the first four books of the *Almagest*. That it was based ultimately upon the Greek appears from the general character of the text, as well as from the carrying over of specific words and the appearance of the Greek form Hipparchus instead of the corruption Abrachis, as in the versions from the Arabic. It is, however, not a close rendering like the Sicilian, and contains none of the tables so carefully preserved by the other translators, while the numbers are often inaccurate.¹⁵⁵ No other copy has been found, nor did this form of the text deserve a wide circulation. The title 'Phyllophonia Wuttoniensis (or Wintoniensis) Ebdelmessie,' which appears at the close of each book, is obviously a corruption, but I cannot guess of what, nor is there any evidence of date other than the age of the manuscript, which begins:

De prologo.

De ordine eorum que sunt in hoc libro.

Quia celum est sperale et suus motus speralis motus.

Quia figura est terre etiam speralis.

Quia terra est in medio celi.

Quia terra ad celum est quasi punctus.

Quia terra non habet motum.

Quia primi motus qui sunt celi sunt duo.

De mensuris cordarum et arcuum qui cadunt in circulo.

De faciendis tabulis arcuum circulorum et suarum cordarum.

De posicione tabularum arcuum et suarum cordarum.

De scienda inclinacione.

De propositione racionum speralis sciencie.

Preclare fecerunt qui corrigentes scienciam philosophie, O Syre, diviserunt theoricam partem philosophie a practica. Nam si pars practice antequam sit praxis est theorica, sed diversitas inter eas est magna, non propter hoc quod aretius¹⁵⁶ morum anime possit esse in pluribus sine doctrina, omnis autem rei theorice non potest aliquis habere sine doctrina scienciam, sed propter hoc qui ducit ad utilitatem que est acquisicio in parte praxis usus facti et in parte theorice crementum sciencie. Ideo igitur perscrutantes speculati

¹⁵⁴ MS. Db. 87, ff. 1-71. I know this from specimen photographs secured in 1910 and from Heiberg's description, *Hermes*, xlv. 215 f. It was first indicated by Björnbo, in *Archiv für die Geschichte der Naturwissenschaften*, i. 392 (1909).

¹⁵⁵ There is also a confusing form of numerals: b = β = 2, etc. Cf. supra, n. 128.

¹⁵⁶ Gk. ἀρετός.

sumus qui debet esse emendacionem nostram in praxis pro sua speculatione ad nostram ymaginacionem, propter hoc enim non mutabimus re parva speculationis que nos ducit ad ordinacionem pulcri operis, igitur ponemus maius de nostro labore in inquirendis theoricis scienciis, nam multe sunt et pulciores sunt et maxime in rebus que nominantur mathematice. O quam pulcra est partio Aristotilis de theorica parte in tria prima genera, phisicaloicam, mathematicam, theoloycam! Nam esse omnium rerum ex materia est et forma et motu, nec potest inveniri unum illorum trium tantum in actu, potest tamen quique eorum subintelligi unum sine alio. Prima ergo causa primi motus universi cum ymaginati fuerimus motum per se intelligemus esse Deum qui nec movetur nec videtur. Nominavimus autem locucionem de eo theologicam et illud facere intelligemus in alta altitudine mundi tantum et divisum ab omni sensibili substantia. . . .

The copy closes with the fourth book as follows:

Igitur est manifesta ex hoc quod diximus causa illius discordie est et confirmata fides nostra ex hoc quod ostendimus de computacione discordie que erit in tempore pansilini et synodi et invenimus illas eclipses quas commemoravimus concordēs fundamenti.

Phylophonia Wuttoniensis Ebdelmessie.

Explicit quartus liber ¹⁵⁷ sermo libri mathematice Ptholomei qui prenomiatur megalixintaxis sive astronomie translatione dictaminis.

What the *Almagest* of Ptolemy was for ancient astronomy, his *Tetrabiblos* or *Quadripartitum* was for astrology.¹⁵⁸ Its authenticity, which was long doubted because of modern unwillingness to believe that Ptolemy was an astrologer, has been established by Franz Boll,¹⁵⁹ from whom a critical edition is expected. Early translated into Arabic, it was widely popular among the Saracens and was soon the subject of commentary by Ali ibn Ridhwan and others. Naturally it was one of the earliest works to be turned into Latin, the version of Plato of Tivoli being dated 1138. Another version was made for Alfonso X by Egidius de Thebaldis of Parma.¹⁶⁰ Midway between these two in point of time is a third version from the Arabic dated 29 August 1206 and preserved in the manuscript of Wolfenbüttel which we have just been examin-

¹⁵⁷ *Liber* cancelled.

¹⁵⁸ For the translation of Ptolemy's *Planisphere* in 1143, see Chapter III, no. 5; for the *Optics*, see infra, Chapter IX, n. 70; for the pseudo-Ptolemaic *Centiloquium*, see Chapter IV, n. 10; and for the *Canons* ascribed to Ptolemy, cf. the present chapter, n. 53.

¹⁵⁹ Boll, *Studien über Claudius Ptolemäus* (Leipzig, 1894), pp. 111-188.

¹⁶⁰ Steinschneider, *H. U.*, pp. 525 f.; *E. U.*, nos. 9, 98 h.

ing, as well as at Parma.¹⁶¹ No author is indicated in the text, which begins and ends as follows:

Prolixitatis exosa latinitas artium principia prescriptione quadam insignire sollicita est ut sequens negotium gratiosius elucescat. In huius igitur initio iuxta expositionem .7. sunt que considerata premittuntur: auctoris intentio, operis utilitas, titulus libri, nomen auctoris, ordo librorum in disciplina, cui parti scientie tractatus innitatur, et operis partitio. Intentio quidem est suscepti operis dilucida consummatio, et utilitas est diligentius intuentis compubescens instructio. . . .

Ex stellarum habitudine prescientie perfectio consecuta, Iezuri, tamquam partes maiores et sublimiores in duo consistit distributa: pars quidem prima in ordine et fortitudine est scientia figurarum solis et lune planetarumque .5. consecutiva, que figure mediantibus motibus stellis eisdem accidunt collatione eorum adinvicem et ad terram observata; pars vero secunda alterationes et operationes investigat que a figuris revolutioni stellarum propriarum et naturalium in rebus quas continent accidunt et perficiuntur. . . .

Quoniam ergo iuxta propositum nostrum in astrorum iudicia viam universalem tradidimus, congruum est ut huic tractatui nostro finem imponamus. Perfecta est huius libri translatio .29. die augusti anno Domini .1206. et 23 die almuhamam¹⁶² anno Arabum 603. Et Deus melius novit. Explicit Quadripartitum Ptholomei in iudicia astrorum secundum accidentia editum.

Two other versions of the *Quadripartitum* were discovered by Björnbo at Oxford¹⁶³ but have not been specially studied: one, ascribed to the Englishman Simon de Bredon ca. 1305 and preserved in marginal extracts, the other made directly from the Greek. The latter, which seems to be cited by Henri Bate in 1281, begins as follows,¹⁶⁴ after the chapter headings of the first book:

Hiis qui instituunt per astronomiam pronosticum finem, O Sire, cum duo insint maxima et principalissima, unum quidem quod et primum est ordine

¹⁶¹ MS. Gud. lat. 147, ff. 162-194; Parma, Biblioteca Palatina, MS. 719, ff. 311-343 v (sæc. xiii). Also at Florence (S. Marco 200 = J. II. 10): *B. M.*, xii. 197.

¹⁶² MS. Parma 719, f. 343 v has *almihatan*.

¹⁶³ *Archiv für die Geschichte der Naturwissenschaften*, i. 391 f. Another *incipit* appears in B.N., MS. lat. 7432, ff. 5-125 v: 'Res, O Mizor, quibus pronosticationes acceptæ de astronomia maiores et nobiliores due sunt . . . finem in hoc loco huic libro conveniens existimamus' (with commentary of Conrad Heingarter dedicated to John, duke of Bourbon and Auvergne). What may be still another version of the *Quadripartitum* is found at Madrid, MS. 10053, ff. 89-110: 'Iuxta providam philosophorum assertionem . . .' See also MS. Chigi, F. iv. 48, f. 23.

¹⁶⁴ MS. Digby 179, ff. 171-208 v. On Henri Bate see now Birkenmajer, "Henri Bate de Malines," in *La Pologne au Congrès international de Bruxelles*, and separately (Cracow, 1923).

[et] virtute per quod motuum solis et lune et astrorum factas semper adinvicem figuraciones comprehendimus, secundum autem per quod per naturalem proprietatem figuracionum ipsorum inclitas permutaciones contentorum consideramus. Primum quidem propriam et propter se eligibilem habens theoriam, etiam si finis qui est ex connexione si non concludatur, in propria compilacione ut maxime inerat demonstrative tibi traditum est. . . .

The treatise ends:

Consummata iam geneatici sermonis opinione ¹⁶⁶ summatim, unde utique habebit huic tractatui convenientem inponere ¹⁶⁶ finem. Explicit liber Ptho[lemei]. Que sequuntur in greco exemplari subiniuncta reperi quo mense morietur quis in omni nativitate . . .

There is no indication of date or translator, but the extreme literalness ¹⁶⁷ is characteristic of the versions made in Italy in the twelfth and thirteenth centuries.

We have now reached and passed beyond the close of the twelfth century in our examination of the anonymous writers and translators who exemplify its tendencies in the field of astronomy. In the next chapter we shall traverse the same period in a series of datable works by known authors in a single country, England.

¹⁶⁶ MS. *opz.*

¹⁶⁶ MS. *tempore* cancelled before *finem*.

¹⁶⁷ *μὲν* = quidem. *δέ* = autem. *ἄν* = utique.

CHAPTER VI

THE INTRODUCTION OF ARABIC SCIENCE INTO ENGLAND ¹

IN the diffusion of the science of the Saracens throughout western Europe in the twelfth century England occupies a position of considerable importance. An English scholar, Adelard of Bath, seems to have been the chief pioneer in this movement of study and translation,² while the existence of a certain number of dated treatises of his contemporaries and successors makes it possible to follow the spread of the new learning in England with greater definiteness than has so far been attempted elsewhere. At the beginning of the century we have a group of abacists and computists who have in nowise been affected by Arabic influence: the abacists, such as Thurkil and Adelard in his *Regule abaci*, follow the schools of Lorraine and Laon,³ while in astronomy the older Latin tradition is found in full vigor as late as 1119, when Philip de Thaon wrote his *Cumpos* with the help of Bede, Helperic, Gerland, a lost treatise of Thurkil on this subject, and the work of the so-called Nimrod, which in its present form probably dates from the Carolingian period.⁴ In the following year, however, the new movement begins to make itself felt in Walcher, prior of Malvern, who had possessed one element of the Arabic astronomy, the astrolabe, as early as 1092, and who now begins to utilize the teaching of a converted Spanish Jew, Petrus Alphonsi.

¹ Revised from *E. H. R.*, xxx. 56-69 (1915).

² *Supra*, Chapter II.

³ Poole, *The Exchequer in the Twelfth Century*, pp. 47 ff.; *infra*, Chapter XV.

⁴ Mall, *Li Cumpos Philipe de Thaun mit einer Einleitung* (Strassburg, 1873); T. Wright, *Popular Treatises on Science* (London, 1841), pp. 20-73; P. Meyer, "Fragment du Comput de Philippe de Thaon," in *Romania*, xl. 70-76. Cf. Langlois, *La connaissance de la nature et du monde au moyen âge* (Paris, 1911), pp. 2, 3, 11; Hamilton, in *Romanic Review*, iii. 314, who suggests the identity of Turkils and Turchillus computista, but overlooks the fact that the treatise in three books cited by Philip cannot be the *Reguncule super abacum*, which contains nothing on the subjects treated in the *Cumpos*. I have discussed Philip's sources in Chapter XVI, and the computists in Chapter V.

Of Lotharingian origin, Walcher had come to England by 1091, and at his death, in 1135, had acquired a reputation as mathematician and astronomer⁵ which is confirmed by two treatises preserved in the Bodleian MS. Auct. F. 1. 9 (ff. 86-99), a manuscript of the twelfth century in which they precede the Khorasmian tables of Adelard of Bath.⁶ The first of these, anonymous in the manuscript, was written between 1108 and 1112,⁷ and consists of a set of lunar tables, with explanations, which comprise a cycle of seventy-six years ending in 1112 and are calculated from an eclipse observed in 1092. In 1091, while travelling in Italy, the author saw the eclipse of 30 October but had no means of determining the exact time, save to note that it differed considerably from the hour reported on his return to England by a brother monk, whence he comments on the considerable difference in time between the two countries. In the following year, however, he had the good fortune to observe the eclipse of 18 October and fix it accurately by means of the astrolabe, which he mentions with the Arabic names of three of its points as something well known to his readers.⁸ His account reads (f. 90):

De experientia scriptoris

Quod vero ipse expertus sum quodque de his et de ceteris supradictis inquirere et colligere potui non silere curavi, ut his quibus defectus solis et lune non est visus aut querendi modo supradicto facultas vel otium vel diligentia non famulantur certior faciliorque ad naturalem cuiusque lunationis originem pateat aditus. Anno ab incarnatione domini iuxta Dionisium M^oXC^oI^o contigit me esse in Italia in parte orientali ab urbe Romona (*sic*) itinere diei et dimidii ubi defectum lune .x^oiiii^o. vidi .iii. kal. novembris ad occidentalem plagam ante aurore exortum, sed nec horologium tunc habui quo plenilunii horam deprehenderem nec ipsa luna conspicue densis obstantibus nebulis

⁵ See his epitaph in *Monasticon*, iii. 442; and cf. William of Malmesbury, *Gesta regum*, ii. 346. The visit to Italy is known only from the text printed below.

⁶ Tanner (*Bibliotheca*, p. 745) gives Walcher a bare mention on the basis of this manuscript (= Bernard, no. 4137). Walcher's authorship of the first treatise is not only an inference from its contents and its occurrence with the second, but is confirmed by cross references, e. g., f. 97 v to f. 94 v.

⁷ It refers (f. 95 v) to the eclipses of 11 January and 31 December 1107, and is obviously anterior to the close of the lunar cycle in 1112.

⁸ F. 90, col. 2: 'Quia de astrolabio scientibus loquor, primam partem Tauri eidem altitudini superposui in parte Almagrip . . . notato loco quem designabat Almeri, reduxi gradum solis usque ad ultimum Almucantaraz.'

apparebat. Memini me vidisse eam corniculatam in modum .V. sed quando deficere incepit vel quando rursus plenitudinem sui luminis recuperavit vehementius densatis nebulis videre non potui. Reversus itaque in Angliam cum quesissem a quibusdam siquis eo tempore vidisset eclypsin, narravit mihi frater quidam ea die tota quę noctem illam precesserat diurno tractandę causę negotio se occupatum plurima iam noctis parte transacta domum venisse, postea cenasse, post cenam parumper sedisse, et quendam de familia egressum attonitum regredi dicentem horrible prodigium in luna monstrari, quod ipse dum exisset vidit et agnovit diu ante mediam noctem, multum enim adhuc a plaga meridiana distabat quam semper luna plena nocte tenet media. Iamque inter Italiam et hanc nostram Anglię insulam non modicam horarum animadvertendam distantiam, cum illic paulo ante auroram defecerit iam vergens ad occasum, hic vero diu ante mediam noctem adhuc ab ortu ascendens. Sed cum nil certum haberem neque de illa neque de hac terra unde quod in voluntate habebam cyclum texere inciperem, grave ferebam et in instantia querendi permanebam. Et ecce anno sequenti eiusdem mensis lunatio tanquam meis occurrens studiis ut me reficeret iterum defecit et .xv. kal. novembris obscurata me illuminavit, quia ignorantę meę tenebras ipsa lumine privata depulit. Mox enim ego apprehenso astrolapsu horam qua totam nigredo caliginosa lunam absorbuerat diligenter inspexi, et .xi^a. noctis agebatur hora .iiii. puncto peracto. . . . Modum autem huius inquisitionis si alios non piget legere, me non piget scribere, et credo quia omnino non deerunt quibus placeat. . . .

This clear bit of evidence is of some importance as confirming specifically, what we know in general from the treatises on the astrolabe commonly ascribed to Gerbert and Hermannus Contractus and containing numerous Arabic words,⁹ that an acquaintance with this instrument had in some unknown way passed into Latin Europe in the course of the eleventh century, thus preceding considerably the arrival of the Arabian astronomy as a whole. The tables of Walcher's first treatise are worked out by the clumsy methods of Roman fractions, but in the second, written in 1120, he uses the degrees, minutes, and seconds, and the more exact observations which he has learned, evidently in England, from Petrus Anfusi (f. 96):¹⁰

⁹ Bubnov, *Gerberti opera mathematica*, pp. 109-147; Migne, *Patrologia Latina*, cliii. 379-412; supra, Chapter I, nn. 20, 21.

¹⁰ Professor Thorndike has called my attention to a copy at Erfurt, MS. Q. 351, ff. 17 v-23: 'Alfoncius de dracone.'

*Sententia Petri Ebrei cognomento Anphus de dracone quam dominus
Walcerus prior Malvernensis ecclesie in latinam transtulit linguam*

Inter .vii^m. planetas per zodiacum circumeuntes discurrit etiam draco sed contrario motu . . . Ecce vides si de eclypsi aliquid volumus prescire quam sit necessarium scire in quibus signis vel signorum gradibus inveniri vel sibi opponi debeant sol et luna caput et cauda draconis omni tempore. Ad quod investigandum prius videnda est via per quam discurrunt, quæ est in zodiaco circulo sed non iuxta usum nostrum priorem. Nos enim, quia traditum a prioribus tenebamus auctoribus unum esse gradum spatium illud quod sol in zodiaco in una die et nocte peragit, ipsum zodiacum in computationibus nostris per .ccc^{os}.lxv^o. gradus et quadrantem dividere soliti sumus propter totidem anni dies et .vi^{as}. horas, ut unusquisque dies suum habeat gradum et .vi^{as}. horæ, quæ sunt diei unius quadrans, unius gradus quadrantem. In tali divisione unumquodque signum plusquam .xxx^{ia}. gradus habet quia solem .xxx^{ia}. diebus et .x^o^m. horis cum dimidia retinet. In presenti autem negotio magister noster hac divisione non utebatur sed illa quæ unumquodque signum in .xxx^{ia}. gradus equaliter dividit et totum zodiacum .ccc^{ti}^{ia}. .lx^{ia}. gradibus claudit secundum quam sol in die unum gradum non perficit. Unde cum de solis inter ipsos gradus progressionem queritur cum difficultate .ccc^{tos}.lx^{ia}. gradus per .ccc^{tos}.lx^{ia}.v^o. dies et quadrantem quibus sol totum perficit zodiacum dividuntur, quia minorem numerum per maiorem dividi natura non patitur. Oportet itaque hanc divisionem per minutias fieri, sed magister noster minutiarum quibus utuntur Latini usum non habens tali utebatur divisione: Zodiacum totum sicut et nos in .xii^o^m. signa unumquodque signum in .xxx^{ia}. gradus unumquemque gradum in .lx^{ia}. punctos unumquemque punctum in .lx^{ia}. minutias unamquamque minutiam in .lx^{ia}. minutias minutiarum dividebat, et per harum particularum collectiones ubi sol vel luna vel caput seu cauda draconis inveniri possent quacunque die vellet vel hora diei vel horæ particula investigabat. Et ad hæc investiganda tale nobis posuit fundamentum:

Anno ab incarnatione domini .M^{illesimo}. C^o.XX^o. kal. aprilis feria V^a. hora diei VI^a. plena fecerat sol in Ariete VII^o^m. gradus et XVIII^o^m. punctos et LVII^o^m. minutias; luna vero in eodem signo XX^{ti}^o^m. gradus et XXX. punctos et LI. minutias; caput draconis erat in primo gradu Scorpionis in primo puncto in prima minutia. Nimirum miraris sicut et nos mirati sumus quod solem kal. aprilis in .VII^o. gradu Arietis esse dixerit, cum omnium Latinorum, non dico modo aliorum, auctoritas habeat ipsum solem ipsa die XV^o^m. gradum eiusdem signi tenere. Unde et interrogatus a nobis respondit dicens, Tunc quod dixi de die et sole et gradu signi verum esse sciatis cum per hoc eclypsim futuram inveneritis. . . . Nos autem tantummodo videamus ubi ponat initia vel fines signorum et in hac supputatione in qua ipsum magistrum habemus sic eius institutionem teneamus ut nostram in aliis non relinquamus.

Questioned respecting the diurnal motion of the sun and the moon, the master says (f. 96 v), after giving the median motion of the moon:

Habet et ipsa motum maiorem et minorem quorum diversitatem ad purum in promptu se non habere dicebat et codices suos in quibus de his et de aliis pluribus omnia certa habebat se trans mare tunc temporis reliquisse. . . . Ecce totum quod dixit nobis de investigatione futurę eclipsis. Unam siquidem id est solis in convenientia ipsius solis et lunę et capitis sive caudę draconis fieri dixit, alteram id est lunę in oppositione ipsorum ut dictum est. Indicavit etiam loca diem et horam unde initium investigandi debeamus assumere et cursum siderum per quem ad finem inquisitionis debeamus pervenire. Quod amplius est prudentię calculatoris relinquitur.

Peter explains the discrepancies in tables by the retardation of the sun in the zodiac. Walcher then works out the motion of sun, moon, and nodes for groups of days and months, in the course of which he says (f. 97 v):

De luna vero, quia accensionem eius et plenilunium sequitur solis eclipsis et lunę, nil melius ad presens dicere possumus quam supra dictum est ubi de naturali accensione eius tractavimus, quanvis ad certam illius horam propter diversos eius motus pervenire non valeamus. Quam diversitatem et nos in ipso tractatuprehendimus et testimonio Petri Anfusi confirmatum est dicentis eam habere .iiij^{as}. motus ut supradiximus.

The statement that Walcher 'translated' Petrus must plainly be taken in the general sense of a paraphrase rather than as meaning a version which would require knowledge of Arabic on Walcher's part.

Further evidence of the astronomical labours of Petrus Anfusi is contained in a treatise preserved in MS. 283 of Corpus Christi College, Oxford.¹¹ Here we have first a set of chronological tables of the sort usual in treatises based on the Arabic, including a concordance of eras for the year 1115,¹² then a series of tables for the various planets, and finally an explanation of the use of the chronological tables covering four pages and beginning as follows:¹³

Dixit Petrus Anfusus servus Ihesu Christi translatorque huius libri: Gratias Deo omnipotenti et domino nostro qui creavit mundum sua sapientia et disposuit suo intellectu omnia. . . . Hec autem trina cognitio

¹¹ Ff. 113-144, saec. xii. exeuntis. Cf. Coxe, *Catalogus*, p. 122; supra, Chapter II, n. 17.

¹² F. 113: 'Tabula ad cognoscendum quantum temporis secundum omnes subscriptos terminos restat usque ad principium huius operis.' This table is also found for the same year in the *Liber ysagogarum Alchoarismi ad totum quadrivium* (Ambrosian MS. A. 3 sup., f. 18; B.N., MS. lat. 16208, f. 70), so that there may be some relation between the two treatises.

¹³ F. 142 v. Cf. Steinschneider, *H. U.*, p. 985.

vocatur stellarum scientia que in tres partes dividitur in cogitatione mirabiles et in rerum significatione notabiles et in experimento approbables. Quarum prima est scientia qualitatis et quantitatis circularum firmamenti cum his que in eo sunt, ad quam vivacitas humani ingenii pervenit geometrali figura numero et mensura; secunda est scientia motuum firmamenti circularum et stellarum que per numerum sciri potest; tertia vero est scientia nature circularum et stellarum et significationes eorum in rebus terrenis que contingunt eorum ex nature virtute et suorum motuum diversitate que experimento cognoscuntur. Fuit etiam ex animi mei sententia ut inde librum ederem et ut per ipsius noticiam eiusdem utilitas cognosceretur, scilicet numerus et motus circularum et stellarum pertinentibusque cum ipsis annis videlicet et mensibus diebus horis ipsarumque punctis, itaque primum necessarium est quota feria annus vel mensis incipiat nosse. Hoc autem opus magno labore desudatum et summo studio ab Arabicis Persicis Egipcicis translatum Latinis benigne impertiri volui, et quia volo ut hic liber predictis omnibus clareat, ideo sub eorundem numero intitulavi et prout in ordine in eorum lingua repperi sic seriatim in latinam linguam digessi.

Evidently we have not this pretentious work in its original and full form, for the chronological tables seem out of place with reference to the explanation of them, while the planetary tables are notable, so far as they extend, for their close agreement with the Khorasmian tables as translated by Adelard of Bath, in the earlier form of his text preserved in the Bodleian.¹⁴ There can be no question of two independent versions, for in the explanatory portions the verbal coincidence is exact. As there is no specific reference to the planetary tables in Peter's preface, their insertion here may be due to a copyist, but their occurrence raises interesting questions respecting the relations of the two contemporaries and their work. Conceivably Adelard may have used Peter as an interpreter, after the fashion of the later translators from the Arabic; his own authorship of the *Liber ezic* is positively asserted by Adelard, but we find others engaged on the Khorasmian tables in some form.¹⁵

The only known Petrus Anfusi, or Alphonsi, is the author of the *Disciplina clericalis* and the *Dialogi cum Iudeo*, who was baptized at Huesca in 1106 with the name of his godfather, Alfonso I of Aragon. Nothing is known of his biography save that he was then in his forty-fourth year, the common assertion that he died

¹⁴ Tables, ff. 113-140 v = (in most respects) Suter, pp. 111-167; text, ff. 141 v-142 v = Suter, pp. 7-14. See Chapter II, no. 3.

¹⁵ Below, n. 31; supra, Chapters II, no. 3; and III, no. 2.

in 1110 being based apparently upon a misunderstanding of Oudin.¹⁶ There is no reason why he may not have journeyed to England, leaving his books *trans mare*, and as a matter of fact we find in a Cambridge manuscript of the *Disciplina clericalis* this heading, in language exactly parallel to the passage in the astronomical treatise: *Dixit Petrus Amphulsus servus Christi Ihesu Henrici primi regis Anglorum medicus compositor huius libri*.¹⁷ The statement that Peter was Henry I's physician I have not found corroborated, but it fits in chronologically with the dates in the astronomical writings, and while there is no necessary connection between their author and the author of the *Disciplina clericalis*, it is more natural to assume identity than to suppose that there were at the same time two converted Spanish Jews of this name, both occupied with translation from the Arabic. In any case it is to a Petrus Alphonsi that we must ascribe a certain share in the introduction of the Arabic astronomy into England before 1120.

Whatever further investigation may discover in the way of predecessors or collaborators, the work of Adelard of Bath remains comprehensive and fundamental, alike with reference to mathematics, astronomy, astrology, philosophy, and his advocacy of the experimental method, but it yields few specific dates. We know that his version of the Khorasmian tables dates from 1126 and that he was in England in 1130 and probably well on into the reign of Stephen; but his earlier life was spent chiefly on the Continent and in the East, and we cannot say when the results of his labours first reached England or affected English learning. John of Worcester knew the translation of the tables probably for the first time in 1138.¹⁸

¹⁶ Antonio, *Bibliotheca Hispana vetus*, ii. 10 f.; Oudin, *De scriptoribus ecclesiae*, ii. 992; Migne, clvii. 527-706. Oudin says merely, 'Claruit circa annum 1110.'

¹⁷ University of Cambridge, MS. II. vi. 11, f. 95. Cf. *Catalogue of MSS.*, iii. 508; Bernard, *Catalogi*, ii. 390, no. 65 (Moore MSS.); Tanner, *Bibliotheca*, p. 40. The latest editors of the *Disciplina clericalis*, Hilka and Söderhjelm, in *Acta Societatis Fennicae* (1911), xxxviii, no. 4, pp. xi, xix, who are unacquainted with the astronomical evidence, consider the statement due to a confusion with some one else. For another astronomical treatise of Petrus, see Thorndike, ii. 70 f.

¹⁸ Ed. Weaver, p. 53.

Adelard's younger contemporary, variously known as Robert of Ketene, Robertus Retinensis, and Robert of Chester,¹⁹ is likewise of interest for the history of Arabic learning in England. In his case the connection with Spain clearly appears. An Englishman by birth, Robert's life is unknown to us until 1141, when, already familiar with Arabic and engaged in the pursuit of astrology, he and his associate, Hermann of Carinthia, were discovered in the region of the Ebro by Peter the Venerable, abbot of Cluny, who engaged them upon a translation of the Koran and upon various controversial pamphlets directed against Mohammedanism. For these facts we have both Peter's correspondence and Robert's prefaces. The version of the Koran was completed in 1143, when Peter tells us that Robert had become archdeacon of Pamplona,²⁰ and when the dedication of Hermann's *De essentiis* celebrates the reunion of the two friends;²¹ but the assumption of the older bibliographers that Robert spent the rest of his life in Navarre disappears if we admit the probability of his identity with Robert of Chester, who is found at Segovia in 1145 and in London in 1147 and 1150. The preface to the Koran tells us,²²

¹⁹ On Robert, see Steinschneider, *E. U.*, nos. 101, 102, whose results have been employed, with some use of English manuscripts, by Archer, in the *Dictionary of National Biography*, xlviii. 362-364; and Karpinski's edition of the *Algebra*. The form 'Retinensis,' which has led some writers to surmise a connection with Reading, is not sufficiently supported by the manuscripts, 'Ketenensis' being found in most of the copies of the translation of the Koran and in the preface of Hermann of Carinthia to his translation of the *Planisphere* (Heiberg, *Ptolemaei Opera astronomica minora*, p. clxxxvi), while the Cotton MS. of the *Iudicia* has 'de Ketene.' The place is probably to be identified with Ketton (in Rutland), which appears as Ketene in charters of the twelfth century: Round, *Calendar of Documents in France*, nos. 530, 532; *Index of Charters and Rolls in the British Museum*, i, s. v. The later works (nos. 2-6) have regularly 'Robertus Cestrensis,' who has sometimes been treated as a different person. The coincidence, however, of time, subjects, English birth, and residence in Spain, tells strongly against the assumption of two distinct Roberts, although the connection with Chester still remains to be explained, unless there is a scribe's confusion of 'Kestrensis' and 'Ketenensis' (Langlois, in *Journal des savants*, 1919, p. 70).

²⁰ Migne, clxxxix. 650; supra, Chapter III, no. 4.

²¹ Dated at Béziers 1143 and subsequent to 1 June, the date of the *Planisphere*, which refers to it as unfinished. See Chapter III, nos. 3, 6, where it appears that the dedication of Albumasar to Robert may be of 1140.

²² Migne, clxxxix. 659.

what we also learn from his other works and from the prefaces of Hermann of Carinthia,²³ that Robert's real interest lay in the study of geometry and astronomy, which he had interrupted for this undertaking, and that his chief ambition was to produce a comprehensive treatise on astronomy. In the field of mathematics and natural science he has left the following works:

1. A translation of the *Iudicia* of al-Kindi. See Steinschneider, *E. U.*, no. 101; and for other manuscripts, Nagy, in *Rendiconti dei Lincei*, 5th series, iv. 160 f.; and Thorndike, i. 648. This has been attributed to another Robert, because of the date 1272 which has slipped into certain manuscripts, probably from the date of a copy, but the authorship of Robert is formally asserted in the Cotton MS. App. VI, and is clear from the preface which is there addressed to Hermann:²⁴

Incipiunt iudicia Alkindi astrologi Rodberti de Ketene translatio ²⁵

Quamquam post Euclidem Theodosii cosmometrie libroque proportionum ²⁶ libencius insudarem, unde commodior ad Almaeisti quo precipuum nostrum aspirat studium pateret accessus, tamen ne per meam segnicie[m] nostra surdesceret amicitia, vestris nutibus nil preter equum postulantibus, mi Hermanne, nulli Latinorum huius nostri temporis astronomico sedere ²⁷ penitus parere paratus, eum quem commodissimum et veracissimum inter astrologos indicem vestra quam sepe notavit diligentia voto vestro serviens transtuli, non minus amicitie quam pericie facultatibus innisus. In quo tum vobis tum ceteris huius scientie studiosis placere plurimum studens, enodato verborum vultu rerum seriem et effectum atque summam stellarum effectuum pronosticationisque quorumlibet eventuum latine brevitati diligenter inclusi. Cuius examen vestram manum postremo postulans non indigne vobis laudis meritum, si quod assit, communiter autem fructus pariat mihi-

²³ Preface to the *De essentiis*, supra, Chapter III; preface to the *Introduitorium* of abu Ma'aschar, *ibid.*; preface to translation of the *Planisphere*, in Heiberg, *Ptolemaei opera astronomica minora*, pp. clxxxvi f.

²⁴ F. 109 (156).

²⁵ The heading is from the Cotton MS. App. vi, f. 109 (156), which contains a corrupt form of the text, here printed from Ashmole MS. 369, f. 85. The *Dictionary of National Biography*, under 'Robert the Englishman,' is in error in inferring from the tract of abu Ali, which follows in the Cotton MS., a connection between Robert and Plato of Tivoli.

²⁶ On the basis of this passage Steinschneider, no. 101, assigns to Robert, whom he makes a distinct Robertus Anglicus, an anonymous *Liber proportionum* found in several manuscripts.

²⁷ *sedem?*

que non segne res arduas aggrediendi calcar adhibeat, si nostri laboris munus amplexu favoris elucescat. Sed ne proemium lectori tedium lectionique moram faciat vel afferat, illius prolixitate supersedendo rem propositam secundum nature tramitem a toto generalique natis exordiis texamus, prius tamen libri tocius capitulis enumeratis ad rerum evidenciam suorumque locorum repertum facilem.

2. A translation of Morienus, *De compositione alchemie*, completed 11 February 1144 (era 1182). This is "one of the earliest treatises of alchemy translated from Arabic into Latin." See Steinschneider, *E. U.*, no. 102 c; Thorndike, ii. 83, 215-217. The Basel edition of 1559 contains the preface; there is an English version in the British Museum, Sloane MS. 3697. Robert may also have had something to do with a version of the *Mappe clavicula*: Steinschneider, *E. U.*, no. 102 d; di Marzo, *I MSS. della Biblioteca comunale di Palermo*, iii. 239.

3. A translation of the *Algebra* of al-Khwarizmi, dated Segovia, 1145 (era 1183). The first Latin version of this fundamental treatise, through which the name as well as the processes of algebra first penetrated to Latin Europe. See now Karpinski, *Robert of Chester's Latin Translation of the Algebra of al-Khowarizmi* (New York, 1915), in the *University of Michigan Studies*; and, for the Arabic work, J. Ruska, in Heidelberg *Sitzungsberichte*, phil.-hist. Kl., 1917, no. 2.

4. A treatise on the astrolabe, dated London 1147 (era 1185). See Steinschneider, *E. U.*, no. 102 f.; and in *Z. M. Ph.*, xvi. 393. There are differences in the various manuscripts (e. g., Digby MS. 40, which has the date and place, but a different *incipit*, and no mention of Robert), and there was evidently a revision after 1150, as the tables of that year are cited (see the next paragraph).²⁸

5. A set of astronomical tables for the meridian of London in 1149-50, based upon the tables of al-Zarkali and al-Battāni and probably adapted from a translation of the *Opus astronomicum* of the latter by Robert, to which Hermann of Carinthia refers in 1143 in the preface to his *Planisphere* but which is otherwise unknown. See Steinschneider, *E. U.*, no. 102 b; Nallino, *al-Battāni*, pp. xxxiv f., xlix f. The London tables formed the second part of a work of which the first part

²⁸ The Ambrosian MS. H. 109 sup., to which reference has heretofore been made on the authority of Muratori, has (f. 11) clearly 'Robertum Cestrensem'; the treatise is followed on f. 17 v by an anonymous *Canon super chilindrum*, beginning, 'Accepturus horas.'

was calculated for the year 1149²⁹ and the meridian of Toledo. Both are cited in Robert's treatise on the astrolabe:³⁰

De ratione coequationis .xii. domorum in libro canonum quem super Toletum et civitatem Londoniarum edidimus, prout tractatus exposcebat ratio, tractavimus.

6. A revision, likewise for the meridian of London, of Adelard's version of the tables of al-Khwarizmi. Madrid, Biblioteca Nacional, MS. 10016, f. 8: 'Incipit liber Ezeig id est chanonum Alghoarizmi per Adelardum Bathoniensem ex arabico sumptus et per Rodbertum Cestrensem ordine digestus.' F. 14: 'He autem adiectiones omnes iuxta civitatem Londonie in hoc libro computantur et mediis cursibus planetarum adiciuntur.'³¹ There are numerous differences from Adelard's version of 1126 as preserved in the Bodleian MS. Auct. F. 1. 9, where the tables are based upon Cordova, and where various Arabic words are retained which the later text omits or turns into Latin. The word 'sine' first appears here. The text of the Madrid MS. corresponds in general with that of the Chartres MS. 214 and of the extracts in MS. 3642 of the Bibliothèque Mazarine. See Suter's edition, pp. xi-xiii, 69.

How far Robert's labours were carried in the works of Euclid, Theodosius, and Ptolemy, we cannot say, for we have only his statement in the preface to al-Kindi, but in his work upon the tables of al-Battāni and al-Khwarizmi he continued worthily the tradition of Adelard of Bath, and in the fields of algebra and alchemy he broke new ground for Latin Europe.

The Madrid manuscript³² which preserves Robert's revision of the Khorasmian tables also contains various tables for the meri-

²⁹ Not 1169, as is generally stated on the basis of Ashmole MS. 361, f. 24 (Black, *Catalogue*, col. 277). The correct statement is found in Savile MS. 21, f. 88 v: 'Ea namque eius pars que ad meridiem civitatis Toleti constituitur a .1149. anno domini incipit et ab eodem termino annos domini per .28. colligens lineas annorum collectorum in mediis planetarum cursibus in tempus futurum extendit, altera vero eius pars cuius videlicet ratio ad meridiem urbis Londoniarum contextitur ab anno domini .1150. sumpsit exordium.'

³⁰ Canonici MS. Misc. 61, f. 22 v.

³¹ On this manuscript, which is of English origin, see the following note and cf. Chapter II, n. 15.

³² The manuscript, no. 10016, containing 85 leaves, is of the early thirteenth century. It belonged originally to an English Cluniac monastery, as appears from the calendar on ff. 5-7 v in the same hand as certain of the tables, but had reached Spain, perhaps via Italy (Suter, p. xi), by 1439, when a Spanish notary, Juan de

dian of Hereford, which are obviously the work of another English astronomer of the twelfth century, Roger of Hereford.³³ We have from him the following:

1. *Computus*, in five books, comprising in all twenty-six chapters: Digby MS. 40, ff. 21-50 v; cf. Macray, *Catalogue*, col. 37. The author criticizes the errors of Gerland and the Latin computists generally, and compares their reckoning with that of the Hebrews and Chaldeans. In the preface, the beginning of which is printed by Wright, *Biographia literaria*, ii. 90 f., he says that although still 'iuvenis' he has given many years to the 'regimen scholarum.' The date of the work is exactly given as 9 September 1176 (f. 48): 'Ut exempli gratia circa tempus huius compositionis huius tractatus anno scilicet Domini .m. c.lxx.vi^o cicli decemnovenalis .xviii. que in vulgari compoto dicitur accensa .v^a. feria anni illius nona die septembris.'³⁴ The author is not specifically named in the body of the treatise, but appears in the acrostic of the table of chapters, GILLEBERTO ROGERUS SALUTES H[IC?] D[ICIT?], where Gilbert is probably Gilbert Foliot, who had been bishop of Hereford till 1163, and one of whose documents is attested in 1173-74 by Rogerus de Herefordia.³⁵ The heading in the manuscript reads, 'Prefatio magistri Rogeri Infantis in compotum,' whence the treatise has been assigned to an otherwise unknown Roger Infans, or, as Le-

Ornos, began to use the margins for family memoranda; until 1869 it was in the cathedral library at Toledo. Ff. 1 v-2 contain astronomical diagrams with astrological notes. F. 2 v, explanation of calculation of eclipses. F. 3, spera de morte vel vita. F. 4, tabula eclipsis tam solis quam lune. F. 4 v, Easter cycle, beginning 1063. Ff. 5-7 v, calendar. Ff. 8-72 v, Liber Ezeig. Ff. 73-83 v, with heading 'Herefordie,' tabule medii motus solis super mediam noctem Herefordie secundum annos domini, the cycles beginning 1120, 1148, 1176, etc., followed by tables for the moon and planets. F. 84, scienciam latitudinum quinque planetarum erraticorum. F. 85, in same hand as f. 4, ortus signorum super Hereford' latitudo .li. gr. et .xxx. minutorum, longitudo .xxiii. grad. F. 85 v, letter of Petosiris to Nechepso (cf. *Philologus*, suppl. vi. 382; Wickersheimer, in *Seventeenth International Congress of Medicine*, section xxiii, pp. 315-318; Spiegelberg, in *Heidelberg Sitzungsberichte*, 1922, no. 3).

³³ Roger has been a source of confusion to bibliographers, who have made of him two or even three distinct persons: see Bale's *Index*, ed. Poole and Bateson, pp. 401 f.; Tanner, pp. 641, 788; Wright, *Biographia literaria*, ii. 89-91, 218 f.; *Dictionary of National Biography*, xlix. 106 f. Cf. Thorndike, ii. 181-187, to whom I owe two minor corrections.

³⁴ Cf. f. 49 v, printed by Macray, who, however, misreads mclxxvi as mclxxvii by mistaking the final punctuation for a unit.

³⁵ *Epistolae*, no. 210 (Migne, cxc. 913).

land called him, Yonge, to whom Wright, followed by the *Dictionary of National Biography*, gave the date 1124, which is found on f. 50 and indicated in a marginal gloss as the date of the work. This year, however, is used only in the course of a calculation of discrepancies, and the date 1176 appears clearly in two other passages. Inasmuch as the astronomical tables of Roger of Hereford belong to 1178 and no other contemporary astronomer of the name is known, we are justified in assigning the *Compotus* to him. The 'Infantis' of the title may be a corruption of 'h'efort,' or an inference from the 'iuvenis' of the preface; the gloss on Alfred de Sereshel (see below) calls him 'Rogerus Puer.'³⁶

2. Astronomical tables for the meridian of Hereford in 1178, based upon tables for Toledo and Marseilles: Madrid, MS. 10016, ff. 4, 73-83 v, 85; British Museum, Arundel MS. 377, ff. 86 v-87: 'Anni collecti omnium planetarum compositi a magistro Rogero super annos domini ad mediam noctem Herefordie anno ab incarnatione domini .m°.c°. lxx°.viii°. post eclipsim que contigit Hereford eodem anno' (13 September). There is only one page of tables under Roger's name in the Arundel MS., but he is probably the author of those which precede (ff. 77-85), and which are calculated for the meridian of Toledo and the year 1176.

3. (?) *Theorica planetarum*. An explanation in thirty-two chapters of the use of astronomical tables: 'Diversi (*al.* Universi) astrologi secundum diversos annos tabulas et computaciones faciunt . . . per modum foraminis rotundi.' Bodley MS. 300 (Bernard, no. 2474), ff. 1-19 v; Digby MS. 168, ff. 69 v-83 v; Savile MS. 21, f. 42 (37), where it is attributed to Robert of Northampton. The treatise refers to 'tabulas ad Londonias factas.' There was a copy at Peterhouse in 1418 (James, *Catalogue*, p. 15), and according to Bale and Leland one at Clare College (James, *Catalogue*, pp. vii, viii). Other MSS. are cited by Duhem, iii. 499-523, who urges that the ascription to Roger of Hereford is the error of a copyist, since this treatise cites the London tables of 1232; Duhem conjectures that the treatise may be by Roger Bacon. There were, however, London tables in the twelfth century.³⁷

4. *Tractatus de ortu et occasione signorum*. 'Orizon rectus est circulus magnus . . . maiora erit ut poterit apparere.' Bodley MS. 300, ff. 84-90. According to Bale's *Index*, p. 402, there was formerly a copy at Clare College.

³⁶ A. Thomas, in *Bulletin hispanique*, vi. 25.

³⁷ Supra, p. 123. Note also the meridian of Angers and Winchester in Arundel MS. 377, f. 56 v.

5. One or more astrological works: '*Liber de quatuor partibus iudiciorum astronomie*. Quoniam circa tria sit omnis astronomica consideratio . . . si non respiciens tertia.' Bibliothèque Nationale, MS. Lat. 7434, ff. 76-79; Limoges, MS. 9, ff. 124 v-128 v; Dijon, MS. 1045, ff. 172 v-180. A treatise beginning, 'Quoniam regulas astronomie,' seems to be part of the same work: Digby MS. 149, f. 189 (cf. Macray, *Catalogue*, col. 149); Selden MS. supra 76, f. 3 (Bernard, no. 3464); MS. e Musaeo 181 (Bernard, no. 3556); University of Cambridge, MS. Gg. vi. 3, f. 139, MS. Ii. 1. 1, ff. 40-59; Trinity College, Dublin, MS. 369; Berlin, Staatsbibliothek, MS. 964 (Rose, *Verzeichnis*, ii. 1210); Erfurt, MS. O. 84, ff. 39-52. Brief extracts in Digby MS. 57, f. 145; Ashmole MS. 369, f. 32; Laud MS. Misc. 594, f. 136. The *Iudicia Herefordensis* in Ashmole MS. 192 and Royal MS. 12 F. 17 of the British Museum consist probably of extracts from this work (cf. also James, *Ancient Libraries of Canterbury and Dover*, p. 322, no. 1135). There is also an astrology in four books in MS. 10271 of the Bibliothèque Nationale, ff. 179-201 v: *Liber de divisione astronomie atque de eius quatuor partibus compositus per dominum* (MS. datum) *Rogerium Herfort astrologum*, beginning, 'Quoniam principium huic arti dignum duximus.'

6. *De rebus metallicis*. Seen by Leland at Peterhouse (Tanner, p. 641), but not since identified; *Expositiones Alphidii* are also cited by Tanner.

Roger of Hereford, accordingly, was a teacher and writer on astronomical and astrological subjects, who was still a young man in 1176, and who, two years later, adapted astronomical tables of Arabic origin to the use of Hereford. How much longer his activity continued we cannot say, unless he is the Roger, clerk of Hereford, who acted as itinerant justice with Walter Map in 1185,³⁸ nor do we know whether he travelled in Spain or what were his relations with Robert of Chester.

In the case of Roger's contemporary, Daniel of Morley, the dependence upon the schools of Spain is clearly indicated.³⁹

³⁸ Pipe Roll, 31 Henry II, p. 146. Master Roger of Hereford attests a York charter of 1154-63: Farrer, *Yorkshire Charters* (Edinburgh, 1914), no. 158. A Roger, vice-dean of Hereford, was the owner of three manuscripts of the twelfth century (MSS. 66, 105, 106) in the library of Jesus College, Oxford: Cox, *Catalogus*, pp. 23, 35.

³⁹ Until recently the fundamental study on Daniel was that of Rose, "Ptolemæus

Finding Paris dominated by law and pretentious ignorance, he hastened, he tells us, to Toledo, as the most famous centre of Arabic science, in order to hear the wiser philosophers of the world. One of his masters there was Gerard of Cremona, the indefatigable translator of the later twelfth century, who had been drawn to Spain by the love of that which he could not find among the Latins, Ptolemy's *Almagest*; and it is likely that the *pretiosa multitudo librorum* with which Daniel returned to England included certain of the mathematical and astronomical treatises which Gerard had turned into Latin.⁴⁰ Certainly the *Philosophia*, or *Liber de naturis inferiorum et superiorum*, our sole source of information respecting Daniel,⁴¹ was written to explain the teaching of Toledo to Bishop John of Norwich (1175-1200); its astronomical chapters are based upon al-Fargani and other Arabic authorities, although its philosophy is still tinged by the *Timæus* and its astrology by Firmicus Maternus.

Could we but follow them, there were doubtless other Englishmen who frequented the schools of Spain in this period, and other learned Jews who visited England. Thus John of Seville composes a treatise on the conversion of Arabic years into Roman at the request of two Englishmen, Gauco and William.⁴² Anglo-Norman horoscopes of ca. 1150 have been preserved.⁴³ We find a William Stafford, archdeacon of Madrid, attesting a Toledo charter of 1154,⁴⁴ and the much-travelled mathematician and astrologer, Abraham ibn Ezra, a native of Toledo, spending some

und die Schule von Toledo," in *Hermes*, viii. 327-349 (1874), who prints the introduction and conclusion of his *Philosophia*, with a brief analysis, from Arundel MS. 377. Briefer extracts were given by Wright, *Biographia literaria*, ii. 227-230; and by Holland, in Oxford Hist. Soc., *Collectanea*, ii. 171 f. The best account is now Thorndike, ii. 171-181; cf. *E. H. R.*, xxxvii. 540-544 (1922); and the general article of Charles Singer, *Isis*, iii. 263-269. The *Philosophia* has now been edited in full by Sudhoff, in *Archiv für die Geschichte der Naturwissenschaften*, viii. 1-40; see Birkenmajer, *ibid.*, ix. 45-51.

⁴⁰ On Gerard's translations see *supra*, Chapter I, n. 43.

⁴¹ Save for an entry in the pipe rolls under Norfolk and Suffolk for the years 1184-1187; see the index to the printed rolls for 31-33 Henry II.

⁴² Oxford, St. John's College, MS. 188, f. 99 v. See *supra*, Chapter I, n. 39.

⁴³ Royal MS. App. 85.

⁴⁴ Printed by Fita, in *Boletín de la Academia de la Historia*, viii. 63 (1886); cf. Bonilla y San Martín, *Historia de la filosofía*, i. 367.

time in London in 1158-59.⁴⁵ The diffusion of the Arabic astrology is well illustrated by the predictions for the year 1186, which occupy considerable space in the English chroniclers, William the astrologer, clerk of the constable of Chester, being specifically named as one of the authors.⁴⁶

The natural philosophy and metaphysics of Aristotle, cited in part but little utilized by Alexander Neckam, first appear to come to their own in England in the writings of Alfred of 'Sereshel' or Alfred the Englishman, a contemporary of Roger of Hereford, to whom he dedicates his version of the Pseudo-Aristotelian treatise *De vegetabilibus*.⁴⁷ In the accompanying commentary he cites the *De anima*, the *De generatione et corruptione*, and a *Liber de congelatis* which he had translated from the Arabic as an appendix of three chapters to the *Meteorology*. A still wider acquaintance with Aristotle appears in a subsequent work, the *De motu cordis*, where he refers to the *Physics*, *Metaphysics*, and *Nicomachean Ethics*; ⁴⁸ in a commentary on the *Meteorology* used by Roger Bacon; ⁴⁹ and in a lost commentary on the *Parva naturalia*.⁵⁰

⁴⁵ Steinschneider, in *Z. M. Ph.*, xxv, sup., pp. 57-128; Jacobs, *Jews of Angevin England*, pp. 29-38.

⁴⁶ Roger of Hoveden, ii. 290-298; Benedict of Peterborough, i. 324-328.

⁴⁷ Jourdain, pp. 106, 430. A copy in the library of the University of Barcelona (MS. 7-2-6) reads: 'Incipit liber de plantis quem Alveredus de arabico transtulit in latinum mittens ipsum magistro Rogero de Herfodia.'

⁴⁸ Baeumker, *Die Stellung des Alfred von Sareshel (Alfredus Anglicus) und seiner Schrift De motu cordis in der Wissenschaft des beginnenden XIII. Jahrhunderts*, in Munich *Sitzungsberichte*, 1913, no. 9, especially pp. 33-48; and his recently published edition of the *De motu cordis* in *Beiträge*, xxiii, nos. 1-2 (1923). Extracts from the *De motu cordis* were published by Barach (Innsbruck, 1878), and it is discussed by Hauréau in *Mémoires de l'Académie des Inscriptions*, xxviii, 2, pp. 317-334.

⁴⁹ A. Pelzer, "Une source inconnue de Roger Bacon," in *Archivum Franciscanum historicum*, xii. 44-67 (1919).

⁵⁰ The library of Beauvais cathedral possessed in the seventeenth century 'Alfredus Anglicus in Aristotelem de mundo et celo, de generatione et corruptione, de anima, de somno et vigilantia, de morte et vita, de colore celi': Omont, "Recherches sur la bibliothèque de l'église cathédrale de Beauvais," in *Mémoires de l'Académie des Inscriptions*, xl (Paris, 1914), p. 48, no. 143. Other treatises attributed to Alfred by the older bibliographers (Tanner, pp. 37 f.) have not been confirmed by recent studies. Steinschneider, *E. U.*, nos. 13, 23, does not identify the translator of the appendix to the *Meteorologica*, whom he calls, after certain manuscripts, Aurelius.

Being dedicated to Neckam, the *De motu cordis* cannot be later than his death in 1217, and as Neckam himself seems to have been acquainted several years earlier with the *Metaphysics*, *De anima*, and *De generatione et corruptione*,⁵¹ it may go back to the beginning of the century. Even if we assign the latest possible limit to the treatise, it shows a wealth of Aristotelian citation such as we cannot find in any other Latin author of its time,⁵² and its philosophy, based partly upon western Platonism and partly upon the older Arabic tradition, is singularly free from theological prepossessions. While Alfred's knowledge of Aristotle was derived in part from versions made from the Greek,⁵³ we know from Roger Bacon and from internal evidence that he visited Spain,⁵⁴ and he must be placed in the series of intermediaries between Arabic and western learning. With him, however, the movement passes from its mathematical and astronomical phase to that which occupied itself primarily with natural philosophy and metaphysics, and we are thus brought into the philosophical currents of the thirteenth century.

⁵¹ *Infra*, Chapter XVIII.

⁵² Baeumker, *Die Stellung*, p. 33.

⁵³ *Ibid.*, pp. 36-41.

⁵⁴ *Opus majus*, ed. Bridges, i. 67; *Compendium studii*, ed. Brewer, p. 471; Baeumker, *op. cit.*, p. 23; *Bulletin hispanique*, vi. 25.

CHAPTER VII

TRANSLATORS IN SYRIA DURING THE CRUSADES

THE influence of the Crusades upon the intellectual life of Europe has been variously judged. Once considered the great channel for the westward flow of Arabic culture, the estimate of their importance has greatly diminished with the clearer apprehension of the manifold contacts established with the East through Spain, Africa, Sicily, and the Byzantine Empire. It has even been denied that the Crusades had any direct effect upon the diffusion of Arabic learning, and it is certainly surprising that even in so practical a field as geography the writers of the thirteenth century should continue to draw upon the classical Latin authors rather than upon the fresher and more direct knowledge of Arabian explorers.¹ Plainly the Crusaders were men of action rather than men of learning, and there was little occasion for western scholars to seek by long journeys to Syria that which they could find nearer home in Spain. Nevertheless, intellectual relations with the Arabs of Syria were not wholly lacking. Early in the twelfth century Adelard of Bath is known to have visited Antioch and Tarsus, though it is not clear to what extent his acquaintance with Arabic science was gained there;² while toward the close of the Crusading epoch Frederick II included the East in the distribution of his questionnaires, and when in Syria came into direct relations with Mohammedan philosophers and scientists, while his 'philosopher' Theodore hailed from Antioch.³ In the intervening hundred years or more our information is but fragmentary, yet it includes, in the twelfth century, translations of the great medical work of Ali-ben-Abbas and a treatise on divina-

¹ On the slow diffusion of Arabic geography, see J. K. Wright, *Geographical Lore of the Time of the Crusades* (New York, 1924).

² Supra, Chapter II.

³ Infra, Chapter XII. On an alleged translation of the so-called *Theology* of Aristotle at Damascus by a Jew of Cyprus, Moses Arovas, see Steinschneider, *H. U.*, p. 244; *E. U.*, nos. 85, 92.

tion, and in the following century the transmission of one of the most famous of mediaeval books, the *Secretum secretorum* ascribed to Aristotle.

STEPHEN OF ANTIOCH

Of these translators who are definitely known to have worked in the East the first is a Pisan, Stephen, trained apparently in the schools of Salerno and Sicily, who followed his countrymen to Antioch, where he appears in 1127 as translating the medical writings of Ali-ben-Abbas and planning further versions from the Arabic. Moreover, his work makes clearer the significance of the Pisan contribution to the learning of the twelfth century, already attested by a medical translation from the Arabic in 1114⁴ and by the versions from the Greek made at Constantinople half a century later by the Pisan scholars Leo Tuscus, Hugo Eterianus, and especially Burgundio.⁵

Ali-ben-Abbas, one of the outstanding Arabic writers of the tenth century, planned his *al-Malaki*, or *Regalis dispositio*, as a comprehensive treatise on medicine intermediate between the enormous *Continens* of Rhazes and the concise *Liber medicinalis* of the same writer, and succeeded in formulating clearly therein the best medical knowledge of his time.⁶ Stephen's translation of the *Liber regalis* is found in numerous manuscripts and in two early editions printed at Venice in 1492⁷ and at Lyons in 1523. The editions and two of the manuscripts comprise two parts, each in ten books, the *Theorica*, of which I know only these manuscripts,⁸ and the *Practica*, much more common.⁹ The printed

⁴ See below.

⁵ See Chapter X. Note also the astronomical tables of Abraham ben Ezra for the meridian of Pisa: *B. M.*, vi. 232; Birkenmajer, *Ryszarda de Fournival*, pp. 35-42; cf. Arundel MS. 377, ff. 56 v-68 v.

⁶ Neuburger, *Geschichte der Medizin* (Stuttgart, 1911), ii, 1, pp. 176, 210.

⁷ Hain 8350*. I have used the copy in the Surgeon General's Library and the copy belonging to Dr. E. C. Streeter of Boston. For the edition of 1523 I have used the copy in the Bibliothèque Nationale.

⁸ Vatican, MS. Urb. lat. 234; MS. Vat. lat. 2429. These MSS. include the *Practica* as well.

⁹ Berlin, Cod. elect. 898; Erfurt, MS. F. 250; Basel, MS. D. ii. 18; Cesena, Plut. xxvi, Cod. iv; Worcester Cathedral, MS. F. 40; Cambrai, MS. 911 (incom-

text lacks at the close a glossary of the technical terms of Dioscorides, first noted by Valentin Rose in his description of the Berlin manuscript, where the essential facts regarding Stephen's translation are first brought together.¹⁰ The *Theorica* had previously been translated into Latin under the title *Pantegni* by Constantine the African, who likewise translated the beginning and the first half of the ninth *particula* of the *Practica*, also found separately as *De chirurgia*.¹¹ The second half of this *particula* was turned into Latin by Constantine's pupil John the Saracen, or Johannes Afflacijs,¹² and a Pisan physician named Rusticus at the time of the great expedition against Majorca in 1114.¹³ Stephen, according to his preface, having come upon Ali's book in Arabic, found there was no complete Latin version, while what had been translated suffered from omissions and transpositions. He accordingly decided to prepare an entirely new version, which appears upon collation to be quite different, every book being signed by the translator to emphasize his work.¹⁴

At the close of the *Regalis dispositio* Stephen adds a glossary of the technical terms in Dioscorides, *Medicaminum omnium breviarium*, which in more or less complete form appears in the manuscripts and is cited as Stephen's *Synonyms* by later writers. In its full form this is an alphabetical list, Greek, Arabic, and Latin in three parallel columns. Readers who have difficulty with the Latin terms can thus consult experts, "for in Sicily and at Salerno,

plete); University of Leipzig, MS. 1131, dated 1179 (Arndt-Tangl, *Schrifttafeln*,⁴ no. 23); Bibliothèque Nationale, MS. lat. 6914. See also Delisle, *Cabinet des MSS.*, ii. 534, §§ 149, 151, 152. "Aly Stephanon Phlebotomia," in MS. Vienna 1634, ff. 94 v-97 v, is probably an extract. I have used the Basel and Paris MSS. and extracts from the Roman.

¹⁰ Cod. elect. 898, *Verzeichniss der lateinischen Hss. der königlichen Bibliothek*, ii. 1059-1065 (1905). Steinschneider (Virchow's *Archiv*, xxxvii. 356 ff., xxxix. 333-335, lii. 479; *E. U.*, no. 111) had seen only the incomplete printed text.

¹¹ Ed. by Pagel, in *Archiv für klinische Chirurgie*, lxxxi, i, pp. 735-786 (1906); cf. Sudhoff, *Die Chirurgie im Mittelalter* (Leipzig, 1914-16), ii. 95.

¹² This point is overlooked by Friedrich Hartmann, *Die Litteratur von Früh- und Hoch-Salerno* (Leipzig diss., 1919), p. 20.

¹³ On the presence of Pisan physicians with this expedition, cf. *Liber Maiolichinus*, ed. Calisse (Rome, 1904), lines 2375 ff.

¹⁴ Cf. Steinschneider, in Virchow's *Archiv*, xxxix. 333 f.; Rose, *l. c.*

where students of such matters are chiefly to be found, there are both Greeks and men familiar with Arabic.”¹⁵

That Antioch was the place of Stephen's work admits of no doubt, for the explicit has *scriptusque eius manu Antiochie*. Stein-schneider once suggested as more probable a small place of this name in Spain;¹⁶ but Stephen speaks definitely of the East and in his concluding paragraph of Syria.¹⁷ There are indications of date at the end of certain of the books, as follows:

- I. 5. Finitur sermo quintus prime partis libri completi artis medicine que dicitur regalis dispositio Hali filii Abbas discipuli Abimeher Moysi filii Seyar translatio Stephani philosophie discipuli de arabico in latinum, et Deo sicut est dignus laus et gloria. Scriptus novembris die vicesima octava feria secunda anno a passione Salvatoris millesimo .c. vicesimo septimo Alduini manu, expletus manu Panci vi diebus existente mense aprilis .m^o.c^o. xxvii.¹⁸
- I. 10. Translatio Stephani de arabico in latinum die octubris septima feria tertia anno a passione Domini millesimo centesimo vicesimo vii^o, Deo gratias, Alduini manu.¹⁹
- II. 3. Scriptus vicesimo septimo et centesimo m. anno.²⁰
- II. 7. Finitur sermo septimus . . . translatio Stephani philosophie discipuli de arabico in latinum scripsitque ipse et complevit anno a passione Domini millesimo centesimo vicesimo .vii. mense novembris die .iii. feria septima apud Antiochiam. Deo gratias rerum principio et fini.

Incipit sermo .viii. . . scripsitque ipse et complevit anno a passione Domini m^o.c.xxvii^o. mense novembris die tertio feria .vi. apud Antiochiam.²¹

¹⁵ See the preface in Rose, p. 1063, and cf. Stornajolo, *Codices Urbinales Latini*, i. 227. The Basel MS. omits the synonyms; the Paris codex has, ff. 147-156, a different list of Arabic and Latin terms only, without the concluding paragraph. The *Glose magistri Stephani* of this period noted by Traube (Wölfflin's *Archiv*, vi. 265) appear to be different. On medico-botanical glossaries see *Anecdota Oxoniensia*, i (1882-1887); and Götz in *Corpus glossariorum Latinorum*, i. 227-236; and for the related material in prescriptions, H. E. Sigerist, *Studien und Texte zur frühmittelalterlichen Rezeptliteratur* (Leipzig, 1923).

¹⁶ Virchow's *Archiv*, xxxix. 333; *Serapeum*, xxxi. 292.

¹⁷ Rose, p. 1063.

¹⁸ MS. Vat. lat. 2429, f. 41 v; MS. Urb. lat. 234, f. 78 v, which gives the final date as 'vii. diebus ext mense aprilis M^o.C^o.C^o. xxxvii.^o'

¹⁹ MS. Vat. lat. 2429, f. 86 v; MS. Urb. lat. 234, f. 162; Venice edition, f. 78 v; Lyons edition, f. 134 v.

²⁰ Berlin, 808, f. 116 v.

²¹ MS. Vat. lat. 2429, f. 168 v; MS. Urb. lat. 234, f. 307, omitting the incipit of book viii; the Venice edition reads 'sunt vi' for 'feria vi.'

- II. 10. Scriptusque eius manu Antiochie a passione Domini millesimo centesimo vicesimo septimo mense ianuario vicesimo septimo die feria quarta.²²

These dates are hopelessly inconsistent with one another, and most of them are also inconsistent with 1127, and no simple emendation or adjustment of chronological styles will harmonize them all. The one element in all is the year 1127, with which the explicit of i. 5 also agrees, while Rose brings the concluding date (ii, 10) into harmony by emending January 26, with the Venice edition, because of possible confusion with the twenty-seven of the year. In that case the translation of the *Practica* would antedate that of the *Theorica*. In any event we may conclude that some part of Stephen's version was made in 1127, the exact dates having been confused by errors of copyists or by the attempt to reduce all dates to this single year.

Of the translator Stephen the preface and epilogue tell us but little. He is a Latin, who quotes Boethius and follows the advice of Solomon to get wisdom. He has studied Arabic in order to mount to the fountain head of learning, and he has evidently some knowledge of Greek. He knows, probably from personal acquaintance, of the scholars of Salerno and Sicily. Matthew of Ferrara adds that Stephen was a Pisan, who went to Saracen lands, learned Arabic, and made a complete translation of Ali, later called *Practica pantegni et Stephanonis*.²³ As Stephanonus he is cited by Platearius.²⁴ That Stephen should be a Pisan is not surprising, for the Pisans had had a special quarter in Antioch since 1108,²⁵ and Pisan activity in medical translation has already been noted.

Stephen's interest in Arabic literature was not limited to medicine. He expressly tells us that the version of the *Regalis dis-*

²² MS. lat. 6914, f. 147; MS. Basel D. ii. 18, f. 255 v; and the Lyons edition. The Berlin and Cesena MSS. have 1107. The Venice edition has a paraphrase: 'Ipsum autem ex arabico in latinum ornatissime traduxit sermonem Stephanus philosophie discipulus in Anthiochia. Anno dominice passionis .M^o.C^o. xxvii. xvi. ianuarii feria quarta.'

²³ Gloss printed by Rose, p. 1060. Ganszyniec, in *Archiv für Geschichte der Medizin*, xiv. 110, claims Stephen as the author of a *De modo medendi*.

²⁴ Rose, p. 1059.

²⁵ Röhricht, *Regesta Regni Hierosolymitani* (Innsbruck, 1893), no. 53.

positio was his first work, but he hopes to translate something out of "all the secrets of philosophy which lie hidden in the Arabic tongue," passing thus from those things which concern the body to the far higher things of the mind.²⁶ This obviously suggests philosophy, and a search among the treatises of the period may show traces of his work in this field. In any such inquiry the name 'Stephen the philosopher' is a source of confusion, denoting, as it also may, Stephen of Alexandria in the seventh century;²⁷ a Greek writer on astrology in the following century;²⁸ and the alleged translator of an astronomical treatise of Maimonides from the late twelfth century;²⁹ not to mention the Stephen of Provins who was commissioned by Gregory IX in 1231 to revise the natural philosophy of Aristotle, and who was in scientific relations with Michael Scot.³⁰ The supposed treatise of Maimonides turns out not to be his, but the work of a Latin writer of the twelfth century who had some knowledge of Greek terms and of Arabic astronomy; if the name 'Stephen the philosopher' does not fall with the ascription of the tract to Maimonides, it is conceivable, though hardly probable from internal evidence, that the author was Stephen of Antioch.

'BERNARD SILVESTER'

Associated in certain manuscripts with the *Experimentarius* of Bernard Silvester is a brief bit of oriental divination whose origin is narrated as follows:³¹

"His igitur in libris nostri primum consumere laboris proposuimus operam, tametsi alia his preclariora lingua habeat apud se arabica, recondita omnia scilicet philosophie archana, quibus deinceps si divina dederit benignitas exercitatum dabimus transferendis ingenium; leviora enim hec preferimus ut ad difficilia via nobis sit et que corporibus necessaria sunt tempore preponimus, ut his sanitare preposita arte medicine que ad animi attinent excellentiam longe altiora subsequantur." Edition of 1522, f. 5.

²⁶ Usener, *De Stephano Alexandrino* (Bonn, 1880); Krumbacher, p. 621.

²⁷ Cumont, in *Catalogus codicum astrologicorum Graecorum*, ii. 181 ff.

²⁸ Cambrai, MS. 930. See above, Chapter V, where it is shown that the treatise which appears with this title is not a translation but an original Latin work.

²⁹ On the various men who bore the name Étienne de Provins in the first half of the thirteenth century, see my paper "Two Roman Formularies in Philadelphia," in the *Miscellanea Francesco Ehrle* (Rome, 1924).

³¹ Bodleian, Digby MS. 46, f. 3-3 v; Savile MS. 21, f. 182.

Quidam invictissimi ac benignissimi regis Amalrici medicus hoc opus .xx. et .viii. questionum super fata secundum .xx. et .viii. mansiones in quibus sol in toto anno moratur naturam et potestatem .vii. planetarum considerans instituit. Hoc autem ad regis laudem et gestorum eius memoriam et maxime triumphum nuper domiti Syraconis, qui dux Persarum, Turcorum, Turcomanorum, Cordiorum, Agarenorum, et Arabum et multarum diversarum gentium cum omnibus viribus suis totam Egyptum violenter invaserat preter quamdam municionem quam Cassarum vocant; dominus²² Egipciorum et cum eo inclusi ad regem miserunt et auxilium postulantes ab eo impetraverunt. Rex autem Amalricus cum paucis per deserta transiens in civitatem quamdam munitissimam Siraconem perteritum fugavit suique multitudinem exercitus intrare coegit ibique eum diucius expugnando, quod omnibus mirum fuit, divina adiutus²³ potentia cum marte potenter domuit ac de toto Egipto expulit et facti sunt Egipcii Amalrico regi tributarii in eternum. Post quod gestum prefatus regis medicus predictum opus secundum planetarum ordinem [sicut] infra in serie apparet ordinavit et regi domino Francorum .v.⁴⁰ in Ierusalem feliciter Deo protegente regnanti.

The reference is either to the events of 1164, when Shirko drove the Egyptians into Cairo and was in turn defeated by Amaury I, king of Jerusalem, and shut up in Bilbais, or, more probably because of the mention of permanent tribute, to the Egyptian campaign against Shirko in 1167.³⁴ The date of the translation is not given, but Amaury (†1173) is apparently thought of as still alive, and in any case the writer knows nothing of the second king of that name who came to the throne in 1197.³⁵ Amaury's physician, the original compiler, is not named, but the treatise sometimes appears as part of the *Experimentarius* of Bernardus, or Bernardinus, Silvester, who is in one manuscript called a translator from the Arabic.³⁶ There is, however, no reason for ascribing any knowledge of Arabic to Bernard Silvester of Tours, a well known figure in the literary history of the twelfth century, nor can he be traced beyond the middle of the century.³⁷ More prob-

²² MS. *dominum*.

²³ MS. *adintus*.

³⁴ Röhricht, *Geschichte des Königreichs Jerusalem* (Innsbruck, 1898), pp. 314-330.

³⁵ William of Tyre says in 1184 that he wrote a history of events in the East from Arabic materials furnished by King Amaury: Steinschneider, *E. U.*, no. 123.

³⁶ 'Titulus talis est, Experimentarius Bernardini Silvestris, non quia inventor fuit sed fidelis ab arabico in latinum interpres': MS. Ashmole 304, f. 2; cf. MS. Digby 46, f. 1.

³⁷ On Bernard, see particularly Cousin, *Fragments philosophiques* (1840), pp. 336 ff.; Hauréau, *Philosophie scholastique* (1872), i, ch. 16; id., in *Mémoires de*

ably, as Thorndike suggests,³⁸ the similarity of subject-matter led to the early association of such treatises on divination, whence it is but a step to the ascription of a common oriental origin.

PHILIP OF TRIPOLI

Directly connected with Syria is the transmission to Europe of the *Secret of Secrets* ascribed to Aristotle, one of the most widely popular books in the whole of the later Middle Ages and the sixteenth century, more than two hundred manuscripts being known of the Latin version, besides early imprints and translations into most of the European languages. Purporting to have been written by Aristotle for the guidance of Alexander the Great, it seemed to contain the distilled essence of practical wisdom and occult science for every reader, as well as the secret maxims of government for the use of princes.³⁹ There had been a translation of the medical portion by John of Seville in the first half of the twelfth century, but the first and the standard version of the whole was due to a certain Philip, clerk of Tripoli, and dedicated to Guido de Vere of Valence, or Valencia, who appears in different manuscripts as bishop of Tripoli, or as archbishop of an unnamed see or of Naples.⁴⁰ The original had been found when Philip and this prelate were at Antioch, and it is by the patron's command that it was turned into Latin, "sometimes literally and sometimes according to the sense, for the Arabs have one idiom and the Latins another." A philosophic pearl of such great price, dealing

l'Académie des Inscriptions, xxxi, 2, pp. 77 ff.; id., in *Histoire littéraire*, xxix. 569 f.; Langlois, "Maitre Bernard," in *B. E. C.*, liv. 225-250; Clerval, *Les écoles de Chartres*, pp. 158-163; Duhem, iii. 68, 117; R. L. Poole, "The Masters of the Schools at Paris and at Chartres in John of Salisbury's Time," in *E. H. R.*, xxxv. 326-331 (1920); Thorndike, ii, ch. 39.

³⁸ ii. 115.

³⁹ Of the vast literature on the *Secretum secretorum*, see particularly R. Förster, *De Aristotelis quae feruntur Secretis secretorum commentatio* (Kiel, 1888); and "Handschriften und Ausgaben des pseudo-aristotelischen Secretum Secretorum," in *Centralblatt für Bibliothekswesen*, vi. 1-22, 57-76, 218 (1889); Steinschneider, *H. U.*, pp. 249 ff.; R. Steele, introduction to Roger Bacon's edition, *Opera hactenus inedita*, v (Oxford, 1920, with an English version from the Arabic); Thorndike, ii. 267-278; and in *Journal of English and Germanic Philology*, xxi. 248-258 (1922).

⁴⁰ 'Tripolis,' 'metropolis,' 'Napolis.'

with every kind of knowledge, was deemed a worthy gift to a prelate so learned in letters, law, and theology.

As to date, Philip's translation is subsequent to the version of John of Seville, which it utilizes, and anterior to the commentary of Roger Bacon, written between 1243 and 1254, probably about 1247. If, which seems to me doubtful, this translation rather than the Arabic original was used in Michael Scot's *Physiognomy*, it was anterior to 1236 and probably to 1228.⁴¹ No manuscripts have been noted earlier than the thirteenth century. Guido de Vere of Valence, or Valencia, is unknown in the East or as archbishop of Naples; but there are many gaps in our lists of this period, and many unconfirmed elections. There are, for example, gaps in Tripoli between 1145 and 1170 and between 1209 and 1217 or later.⁴² There was a Philip, chanter of Tripoli, in 1126.⁴³ In 1177 Alexander III uses a certain Philip, his own physician, as an intermediary with Prester John,⁴⁴ but, in spite of recent assumptions, there seems nothing to connect him specifically with Tripoli. A Master Philip of Tripoli appears in a fictitious attribution of "1212."⁴⁵ More probable, and much better known, is Philip, canon of Tripoli, who meets us in the papal registers from 1227 to 1251. 17 May 1227, as Master Philip, clerk of Foligno, he received from Gregory IX a canonry at Tripoli in recognition of his services to the patriarch and church of Antioch and his loss of property in such service, but in the face of opposition from the bishop and chapter.⁴⁶ This opposition appears to have been for a time successful, for he received a reappointment at the beginning

⁴¹ *Infra*, Chapter XIII.

⁴² See Röhricht, "Syria sacra," in *Zeitschrift des deutschen Palästina-Vereins*, x. 1-48 (1887); *Regesta*, no. 800. Some connection of Valence with Tripoli appears in John of Valentia, canon of St. Michael of Tripoli in 1244: Berger, *Registres*, no. 737. Cf. also Gerald, bishop of Valence, who became patriarch of Jerusalem in 1226.

⁴³ Röhricht, *Regesta*, nos. 117, 1274.

⁴⁴ *Ibid.*, no. 544; Jaffé-Löwenfeld, no. 12942; Thorndike, ii. 244.

⁴⁵ Brown, *Michael Scot*, p. 20; Steinschneider, *H. U.*, p. 793; Thorndike (ii. 271) vainly attempts to save this date by assuming the Spanish era.

⁴⁶ Auvray, *Registres de Grégoire IX*, nos. 118, 119. 'Philippus subdiaconus noster nepos bone memorie R. Antiocheni patriarche canonicus Antiochenus,' who appears in a bull of Honorius III, 25 September 1225 (Pressutti, *Regesta*, no. 5660), would seem to be a different person.

of the next pontificate,⁴⁷ when, as canon of Byblos, he also complains to the Pope of his bishop's ignorance of Donatus and Cato, in the course of a controversy between them which had begun before 1236.⁴⁸ 11 September 1245 he witnesses an act at Genoa.⁴⁹ In 1247, as plain Philip of Tripoli, he is at Lyons with the Pope, representing the patriarch of Jerusalem, who is ordered to give him an additional ecclesiastical appointment in that province because of his qualities of character and his knowledge of letters.⁵⁰ In 1248, chaplain of Hugh, cardinal priest of St. Sabina, he resigns his prebend at Byblos in favor of his nephew, and is confirmed by the Pope in his prebend at Tripoli, conferred upon him by Innocent IV five years before but a subject of protracted litigation with the bishop.⁵¹ Canon of Tyre in the same year,⁵² he declines a disputed election to the see of Tyre in 1250 and succeeds the archbishop elect as chanter of Tripoli, meanwhile retaining his cathedral prebends in Tyre and Sidon.⁵³ In 1251 he is also chaplain of the Pope.⁵⁴ At this point Philip disappears from the printed papal registers, but local documents show him as chanter of Tripoli in 1257 and 1259.⁵⁵ In all this history of pluralities and controversy and steady support from Rome there is no word of Philip's literary labors save the Pope's special mention of his *scientia litterarum* in 1247, but there is ample evidence of his sojourn in the East and his journeys westward. Moreover the chronological difficulty which appeared to exist when he had not been traced back of 1243 vanishes with the discovery of the documents of 1227 which show him to have been already at Antioch. There is every reason to believe that this canon is the Philip of

⁴⁷ Berger, *Registres d'Innocent IV*, no. 4394.

⁴⁸ *Ibid.*, nos. 57, 2403.

⁴⁹ Document cited by A. Ferretto, in *Giornale storico della Liguria*, i. 362, n. (1900). I know of no foundation for this author's assertion that Philip was a Florentine.

⁵⁰ Berger, no. 3138.

⁵¹ *Ibid.*, nos. 4354 f., 4394.

⁵² *Ibid.*, no. 4355.

⁵³ *Ibid.*, nos. 5048, 5390.

⁵⁴ *Ibid.*, no. 5178.

⁵⁵ Röhricht, *Regesta*, nos. 1258 b, 1274 a; Delaville Le Roulx, *Cartulaire de S. Jean de Jérusalem*, nos. 2875, 2921.

Tripoli who made the translation of the *Secretum secretorum* some time in the first half of the thirteenth century.

Philip's version went through a revising and standardizing process which may explain the Gallicisms that have been found in the text.⁵⁶ The translation has been pronounced remarkably close and accurate.

⁵⁶ Förster, p. 28.

CHAPTER VIII

THE GREEK ELEMENT IN THE RENAISSANCE OF THE TWELFTH CENTURY¹

THE renaissance of the twelfth century consisted in part of a revival of the Latin classics and the Roman law, whence the movement has sometimes been called a 'Roman renaissance,' in part of a rapid widening of the field of knowledge by the introduction of the science and philosophy of the ancient Greeks into western Europe. This Greek learning came in large measure through Arabic intermediaries, with some additions in the process, so that the influence of the Saracen scholars of Spain and the East is well understood.² It is not always sufficiently realized that there was also a notable amount of direct contact with Greek sources, both in Italy and in the East, and that translations made directly from Greek originals were an important, as well as a more direct and faithful, vehicle for the transmission of ancient learning. Less considerable in the aggregate than what came through the Arabs, the Greek element was nevertheless significant for the later Middle Ages, while it is further interesting as a direct antecedent of the Greek revival of the Quattrocento. No general study has yet been made of this movement, but detailed investigation has advanced sufficiently to permit of a brief survey of the present state of our knowledge.

The most important meeting-point of Greek and Latin culture in the twelfth century was the Norman kingdom of southern Italy and Sicily.³ Long a part of the Byzantine Empire, this region still retained Greek traditions and a numerous Greek-speaking population, and it had not lost contact with the East. In the eleventh century the merchants of Amalfi maintained an active commerce with Constantinople and Syria; Byzantine craftsmen

¹ Revised from the *American Historical Review*, xxv. 603-615 (1920). Cf. *Isis*, iv. 582.

² *Supra*, Chapter I.

³ See Chapters IX, XII.

wrought great bronze doors for the churches and palaces of the south,⁴ and travelling monks brought back fragments of Greek legend and theology to be turned into Latin.⁵ Libraries of Greek origin, chiefly of Biblical and theological writings, were gathered into the Basilian monasteries,⁶ and more comprehensive collections were formed at the Norman capital. Only in the Norman kingdom did Greek, Latin, and Arabic civilization live side by side in peace and toleration. These three languages were in current use in the royal charters and registers, as well as in many-tongued Palermo, so that knowledge of more than one of them was a necessity for the officials of the royal court, to which men of distinction from every land were welcomed. The production of translations was inevitable in such a cosmopolitan atmosphere, and it was directly encouraged by the Sicilian kings, from Roger to Frederick II and Manfred, as part of their efforts to foster learning. While Roger commanded a history of the five patriarchates from a Greek monk, Nilus Doxopatres, and a comprehensive Arabic treatise on geography from the Saracen Edrisi, translation appears to have been more actively furthered during the brief reign of his successor. Under William I a Latin rendering of Gregory Nazianzen was undertaken by the king's orders, and a version of Diogenes Laertius was requested by his chief minister Maio. Indeed the two principal translators were members of the royal administration, Henricus Aristippus and Eugene the Emir, both of whom have left eulogies of the king which cele-

⁴ A. Schaube, *Handelsgeschichte der romanischen Völker* (Munich, 1906), pp. 34-37; F. Novati, *Le origini*, in the coöperative *Storia letteraria d'Italia*, pp. 312 ff.

⁵ The principal examples are Nemesius, *De natura hominis*, translated by Alfano, bishop of Salerno (ed. Burkhardt, Leipzig, 1917); and a collection of miracles put into Latin by the monk John of Amalfi. On Alfano, see particularly C. Baeumker, in *Wochenschrift für klassische Philologie*, xiii. 1095-1102 (1896); and G. Falco, in *Archivio della Società romana di storia patria*, xxv. 439-481 (1912); and in *Bullettino dell' Istituto storico italiano*, no. 32, pp. 1-6 (1912); *Neues Archiv*, xxxviii. 667; Manitius, *Lateinische Litteratur*, ii. 618-637. On John, M. Huber, *Iohannes Monachus, Liber de Miraculis* (Heidelberg, 1913); Hofmeister, in *Münchener Museum*, iv. 129-153 (1923); Manitius, ii. 422-424.

⁶ F. Lo Parco, "Scolario-Saba," in *Atti della R. Accademia di Archeologia di Napoli*, n. s., i, pt. ii, pp. 207-286 (1910), with Heiberg's criticism in *B. Z.*, xxii. 160-162.

brate his philosophic mind and wide-ranging tastes and the attractions of his court for scholars.⁷

Archdeacon of Catania in 1156, when he worked at his Plato in the army before Benevento, Aristippus was the principal officer of the Sicilian *curia* from 1160 to 1162, when his dismissal was soon followed by his death. Besides the versions of Gregory Nazianzen and Diogenes, which, if completed, have not reached us, Aristippus was the first translator of the *Meno* and *Phaedo* of Plato and of the fourth book of Aristotle's *Meteorology*, and his Latin rendering remained in current use during the Middle Ages and the early Renaissance. An observer of natural phenomena on his own account, he was also instrumental in bringing manuscripts to Sicily from the library of the Emperor Manuel at Constantinople. One of these possesses special importance, a beautiful codex of Ptolemy's *Almagest*, from which the first Latin version was made by a visiting scholar about 1160. The translator tells us that he was much aided by Eugene the Emir, "a man most learned in Greek and Arabic and not ignorant of Latin," who likewise translated Ptolemy's *Optics* from the Arabic. The scientific and mathematical bent of the Sicilian school is seen in still other works which were probably first turned into Latin here: the *Data*, *Optica*, and *Catoptrica* of Euclid, the *De motu* of Proclus, and the *Pneumatica* of Hero of Alexandria. A poet of some importance in his native Greek, Eugene is likewise associated with the transmission to the West of two curious bits of Oriental literature, the prophecy of the Erythraean Sibyl and the Sanskrit fable of Kalila and Dimna. If it be added that the new versions of Aristotle's *Logic* were in circulation at the court of William I, and that an important group of New Testament manuscripts can be traced to the scribes of King Roger's court, we get some further measure of the intellectual interests of twelfth-century Sicily, while the medical school of Salerno must not be forgotten as a centre of attraction and diffusion for scientific knowledge.

Italy had no other royal court to serve as a centre of the new learning, and no other region where East and West met in such constant and fruitful intercourse. In other parts of the peninsula

⁷ *Hermes*, i. 388; *B. Z.*, xi. 451.

we must look less for resident Greeks than for Latins who learned their Greek at Constantinople, as travellers, as diplomats, or as members of the not inconsiderable Latin colony made up chiefly from the great commercial republics of Venice and Pisa.⁸

Among the various theological disputations held at Constantinople in the course of the twelfth century, Anselm of Havelberg has left us an account of one before John Comnenus in 1136, at which "there were present not a few Latins, among them three wise men skilled in the two languages and most learned in letters, namely James a Venetian, Burgundio a Pisan, and the third, most famous among Greeks and Latins above all others for his knowledge of both literatures, Moses by name, an Italian from the city of Bergamo, and he was chosen by all to be a faithful interpreter for both sides."⁹ Each of these Italian scholars is known to us from other sources, and they stand out as the principal translators of the age, beyond the limits of the Sicilian kingdom.

Under the year 1128 we read in the chronicle of Robert of Torigni, abbot of Mont-Saint-Michel, and well informed respecting literary matters in Italy, that "James, a clerk of Venice, translated from Greek into Latin certain books of Aristotle and commented on them, namely the *Topics*, the *Prior* and *Posterior Analytics*, and the *Elenchi*, although there was an older version of these books."¹⁰ Long the subject of doubt and discussion, this passage has recently been confirmed from an independent source,¹¹ so that James can be singled out as the first scholar of the twelfth century who brought the *New Logic* of Aristotle afresh to the attention of Latin Europe. What part his version had in the Aristotelian revival, and what its fate was as compared with

⁸ On the north-Italian translators, see below, Chapter X; and in general, G. Gradenigo, *Lettera intorno agli Italiani che seppero di greco* (Venice, 1743). Sandys, *History of Classical Scholarship*,³ i. 557 ff., touches the matter very briefly.

⁹ L. d'Achery, *Spicilegium* (Paris, 1723), i. 172; Migne, clxxviii. 1163; *infra*, p. 197.

¹⁰ Robert of Torigni, *Chronique*, ed. Delisle, i. 177; *M. G. H., Scriptores*, vi. 489. In the eleventh century, St. Anastasius, a Venetian monk of Mont-Saint-Michel, is said to have known Greek: *Acta Sanctorum*, October, vii. 1125-1140; Paul Fourrier, in Baudrillart, *Dictionnaire d'histoire et de géographie*, ii. 1469.

¹¹ *Infra*, Chapter XI.

the traditional rendering of Boethius, are questions which for our present purpose it is unnecessary to examine.

Moses of Bergamo evidently found his eastern connections by way of Venice. He is the author of an important metrical description of Bergamo, and kept up relations with his native city through letters to his brother and through benefactions to various churches, but his messengers pass through Venice, and he lives in the Venetian quarter at Constantinople. Here he is found in the emperor's service in 1130, when he has lost by fire a precious collection of Greek manuscripts, brought together by long effort at the price of three pounds of gold. He tells us that he learned Greek for the special purpose of turning into Latin works not previously known in the West, but the only specimen which has been identified is a translation of an uninteresting theological compilation. He has also left grammatical *opuscula*, including a commentary on the Greek words in St. Jerome's prefaces, which attest his familiarity with the language and with the writings of the Greek grammarians. Apparently what we have left are only the fragmentary remains of a many-sided activity, as grammarian, translator, poet, and collector of manuscripts,¹² which justifies us in considering him a prototype of the men who "settled *hoti's* business" in the fifteenth century.

Burgundio the Pisan¹³ is a well known figure in the public life of his native city who made several visits to Constantinople. Although translation from the Greek seems to have been the occupation of his leisure moments only, his output was more considerable than that of any of his Latin contemporaries. Much of it was theology, including works of Basil and Chrysostom and John of Damascus which exerted a distinct influence on Latin thought. Philosophy was represented by Nemesius, law by the Greek quotations in the *Digest*, agriculture by an extract from the *Geoponica*. He was perhaps best known as the author of the current translations of the *Aphorisms* of Hippocrates and ten works of that Galen whom another Pisan, Stephen of Antioch, helped bring in from the Arabic.¹⁴ His epitaph celebrates the universal learning of this *optimus interpres*:

¹² *Infra*, pp. 197-206. ¹³ See below, Chapter X. ¹⁴ *Supra*, Chapter VII.

Omne quod est natum terris sub sole locatum
Hic plene scivit scibile quicquid erat.

Less noteworthy than Burgundio, two other members of the Pisan colony should also be mentioned, Hugo Eterianus and his brother Leo, generally known as Leo Tuscus.¹⁵ Hugo, though master of both tongues, was not so much a translator as an active advocate of Latin doctrine in controversy with Greek theologians, a polemic career which was crowned with a cardinal's hat by Lucius III. Leo, an interpreter in the emperor's household, translated the mass of St. Chrysostom and a dream-book (*Oneirocriticon*) of Ahmed ben Sirin. The interest in signs and wonders which prevailed at Manuel's court is further illustrated by one Paschal the Roman, who compiled another dream-book at Constantinople in 1165 and is probably the author of the version of Kiranides made there in 1169; as well as by other occult works which found their way westward about this time, perhaps in part from the imperial library. Indeed the relations, formal and informal, between the Greek empire on the one hand, and the Papacy and the Western empire on the other, offered many occasions for literary intercourse; and while we hear most of the resultant disputes between Greek and Latin theologians, it is altogether likely that other materials came west in ways which have so far escaped detection.

North of the Alps there is little to record in the way of translation, although it is probable that certain of the anonymous translators who worked in Italy came from other lands. In Germany we have the *Dialogi* with the Greeks written down by Anselm of Havelberg about 1150, and the *De diversitate persone et nature* which another emissary of the Western Empire brought back in 1179. Before the middle of the century a monk in Hungary, Cerbanus, translated the *Ekatontades* of Maximus the Confessor and perhaps also a treatise of John of Damascus.¹⁶ In 1167 a certain William the Physician, originally from Gap in Provence,

¹⁵ See Chapter X.

¹⁶ See below, Chapter X; and for Cerbanus, Ghellinck in *B. Z.*, xxi. 453-457 (1913). On ignorance of Greek in mediaeval Germany, see Pendzig, in *Neue Jahrbücher*, xlii. 213-227 (1918).

brought back Greek manuscripts from Constantinople to the monastery of Saint-Denis at Paris,¹⁷ where he later became abbot (1172-86). Sent out originally by Abbot Odo, he was evidently specially charged with securing the works attributed to Dionysius the Areopagite, who was confused with the patron saint of the monastery and of France, and a volume of these which he brought back is still preserved among the Greek codices of the Bibliothèque Nationale.¹⁸ He also brought with him and translated the text of the *Vita Secundi*, a philosophical text of the second century,¹⁹ and summaries (*hypotheses*) of the Pauline epistles, while still other manuscripts may have been included in the *opes atticas et orientales* mentioned by one of his fellow-monks. This monk, also named William and sometimes confused with the physician, translated the eulogy of Dionysius by Michael Syncellus, but the writings which occupy the remainder of the Dionysian volume — *De caelesti hierarchia*, *De ecclesiastica hierarchia*, *De divinis nominibus*, *De mystica theologia*, and ten epistles — were rendered into Latin by John Sarrazin.²⁰ This John had himself visited the Greek East, where he had sought in vain the *Symbolica theologia* of Dionysius, as we learn from one of his prefaces.²¹ In spite of the crudeness of his translations, his learning was valued by John of Salisbury, who turns to him on a point of Greek which Latin masters cannot explain, and who even expresses a desire to sit at Sarrazin's feet.²²

¹⁷ The material relating to William the Physician is conveniently given by Delisle, in *Journal des savants*, 1900, pp. 725-739.

¹⁸ MS. Gr. 933.

¹⁹ Delisle, in *Journal des savants*, p. 728. The version is critically edited, and its use by French writers traced, by A. Hilka in *88. Jahresbericht der schlesischen Gesellschaft für vaterländische Cultur* (Breslau, 1910), iv. Abt., c. 1. See further F. Pfister, in *Wochenschrift für klassische Philologie*, 1911, coll. 539-548. On the popularity of the Latin version, see Manitius, *Geschichte der lateinischen Literatur im Mittelalter*, i. 285; Thorndike, ii. 487.

²⁰ Delisle, pp. 726 ff.; *Histoire littéraire de la France*, xiv. 191-193. MSS. of these translations, with the prefaces, are common, e. g., Bibliothèque de l'Arsenal, MS. 529; Chartres, MS. 131; Vatican, MS. Vat. Lat. 175; Madrid, Biblioteca Nacional, MS. 523 (A. 90); Munich, MSS. 385, 435. On the influence of Sarrazin, who also wrote a commentary on the *Celestial Hierarchy*, see now Grabmann, in *Festschrift Albert Ehrhard* (Bonn, 1922), pp. 180-199; and G. Théry, in *Revue des sciences philosophiques et théologiques*, xi. 72-81 (1922).

²¹ Delisle, p. 727. ²² *Epistolae*, no. 169; cf. also nos. 147, 149, 223, 229, 230

The dependence of the leading classicist of the age upon a man like Sarrazin shows the general ignorance of Greek. "The most learned man of his time," John of Salisbury made no less than ten journeys to Italy, in the course of which he visited Benevento and made the acquaintance of the Sicilian chancellor; he knew Burgundio, whom he cites on a point in the history of philosophy;²² he studied with a Greek interpreter of Santa Severina, to whom he may have owed his early familiarity with the *New Logic*; yet his culture remained essentially Latin.²⁴ "He never quotes from any Greek author unless that author exists in a Latin translation."²⁵ So the theologian whom John considers his most learned contemporary, Gilbert de la Porrée, though he knows something of the Greek Fathers, is quite ignorant of that language.²⁶ Greek could be learned only in southern Italy or the East, and few there were who learned it, as one can see from the sorry list of Greek references which have been culled from the whole seventy volumes of the Latin *Patrologia* for the twelfth century.²⁷ The Hellenism of the Middle Ages was a Hellenism of translations — and so, in large measure, was the Hellenism of the Italian Renaissance.²⁸

Finally there remain to be mentioned the anonymous translations, made for the most part doubtless in Italy. Where we are fortunate enough to have the prefaces, these works can be dated approximately and some facts can be determined with respect to their authors, as in the case of the first Latin version of the *Al-*

²² *Metalogicus*, bk. iv., c. 7.

²⁴ Schaarschmidt, *Johannes Saresberiensis* (Leipzig, 1862); Poole, in *Dictionary of National Biography*; C. C. J. Webb, *Ioannis Saresberiensis Policraticus*, i, introd.

²⁵ Sandys, *History of Classical Scholarship*³, i, 540.

²⁶ *M. G. H.*, *Scriptores*, xx, 522; infra, Chapter X, p. 213.

²⁷ How sorry this list is, the Abbé A. Tougard does not seem to realize when he has drawn it up: *L'hellénisme dans les écrivains du moyen âge* (Paris, 1886), ch. v. On the reserve necessary in using such citations, cf. Traube, *O Roma Nobilis* (Munich, 1891), p. 65. For a list of theological MSS. of the twelfth century not in the *Patrologia*, see Noyon, in *Revue des bibliothèques*, 1912, pp. 277-333; 1913, pp. 297-319, 385-418. On Greek in the twelfth century, see Sandys, pp. 555-558. Miss Louise R. Loomis, *Medieval Hellenism* (Columbia thesis, 1906), adds nothing on this period.

²⁸ Loomis, "The Greek Renaissance in Italy," in *American Historical Review*, xiii. 246-258 (1908).

magest, made in Sicily about 1160, and a version of Aristotle's *Posterior Analytics* (1128-59) preserved in a manuscript of the cathedral of Toledo.²⁹ In the majority of cases no such evidence has been handed down, and we have no guide beyond the dates of codices and the citations of texts in a form directly derived from the Greek. Until investigation has proceeded considerably further than at present, the work of the twelfth century in many instances cannot clearly be separated from that of the earlier Middle Ages on the one hand, and on the other from that of the translators of the thirteenth and fourteenth centuries who follow in unbroken succession. Often we know only that a particular work had been translated from the Greek before the time of the humanists. The most important body of material with which the twelfth century may have occupied itself anonymously is the writings of Aristotle.³⁰ The *Physics*, *Metaphysics*, and briefer works on natural history reach western Europe about 1200; the *Politics*, *Ethics*, *Rhetoric*, and *Economics* only in the course of the next two generations. In nearly every instance translations are found both from the Greek and from the Arabic, and nearly all are undated. At present about all that can be said is that by the turn of the century traces are found of versions from the Greek in the case of the *Physics*, *De caelo*, *De anima*, and the *Parva naturalia*, and perhaps of the *Metaphysics*.

On the personal side these Hellenists of the twelfth century have left little of themselves. James of Venice is only a name; the translator of the *Almagest* is not even that. Moses of Bergamo we know slightly through the accident which has preserved one of his letters; others survive almost wholly through their prefaces. Characteristic traits or incidents are few — Moses lamenting the loss of his Greek library, and the three pounds of gold it had cost him; the Pisan secretary of Manuel Comnenus trailing after the emperor on the tortuous marches of his Turkish campaigns; Burgundio redeeming his son's soul from purgatory by translating Chrysostom in the leisure moments of his diplomatic journeys; a Salerno student of medicine braving the terrors of Scylla and Charybdis in order to see an astronomical manuscript just ar-

²⁹ *Infra*, Chapters IX, XI.

³⁰ *Infra*, Chapters XI, XVIII.

rived from Constantinople, and remaining in Sicily until he had mastered its contents and made them available to the Latin world; Aristippus working over Plato in camp and investigating the phenomena of Etna's eruptions in the spirit of the elder Pliny; Eugene the Emir, in prison at the close of his public career, writing Greek verse in praise of solitude and books. Little enough all this, but sufficient to show the kinship of these men with "the ancient and universal company of scholars."

So far as we know, these Hellenists produced no grammars like Roger Bacon's or the *Erotemata* of Chrysoloras, though Moses of Bergamo turned into Latin the substance of two chapters of the grammar of Theodosius of Alexandria.³¹ Nor was their knowledge of Greek reflected in Greek dictionaries or in any permanent improvement in lexicography; indeed the Greek of the etymologists grows worse rather than better as the Middle Ages wear on. When, about 1200, the learned Pisan canonist Hugutio, professor at Bologna and bishop of Ferrara, compiles his *Derivationes*, he takes his Greek etymologies chiefly from his predecessors, the Lombard Papias (1053) and the Englishman Osbern, both likewise ignorant of Greek; yet Hugutio was the standard lexicographer of the later Middle Ages and was by Petrarch bracketed with Priscian as the chief of grammarians.³² The *Grecismus* of Evrard de Béthune (1212), a favorite grammar in its time, is notable chiefly for its ignorance of Greek.³³ Some acquaintance with the language was claimed by William of Corbeil, who in the early twelfth century dedicated his *Differentie* to Gilbert de la Porrée.³⁴

In all its translations the twelfth century was closely, even painfully literal, in a way that is apt to suggest the stumbling and conscientious school-boy. Every Greek word had to be repre-

³¹ *Infra*, Chapter X, n. 64.

³² On Hugutio see particularly G. Götz, in Leipzig *Sitzungsberichte*, lv. 121-154 (1903); id., in *Corpus glossariorum Latinorum*, i. ch. 17, who cites 106 MSS. and prints the pompous preface. On Osbern's writings see Miss Bateson, in the *Dictionary of National Biography*. Besides the MSS. there cited (Royal 6 D ix of the British Museum; and 654 of Rouen), I have used the dialogues in MS. 301 at Tours, ff. 76-110.

³³ Ed. Wrobel (Berlin, 1887); cf. Sandys², i. 667. ³⁴ *Infra*, Chapter X, n. 119.

sented by a Latin equivalent, even to μέν and δέ. Sarrazin laments that he cannot render phrases introduced by the article, and even attempts to imitate Greek compounds by running Latin words together.³⁵ The versions were so slavish that they are useful for establishing the Greek text, particularly where they represent a tradition older than the extant manuscripts. This method, *de verbo ad verbum*, was, however, followed not from ignorance but of set purpose, as Burgundio, for example, is at pains to explain in one of his prefaces.³⁶ The texts which these scholars rendered

³⁵ John of Salisbury, *Epistolae*, nos. 149, 230; cf. William the Physician, in *Journal des savants*, 1900, p. 738.

³⁶ 'Verens igitur ego Burgundio ne, si sententiam huius sancti patris commentationis assumens meo eam more dictarem, in aliquo alterutrorum horum duorum sapientissimorum virorum sententiis profundam mentem mutarem et in tam magna re, cum sint verba fidei, periculum lapsus alicuius alteritatis incurrerem, difficiliter iter arripiens, et verba et significationem eandem et stilum et ordinem eundem qui apud Grecos est in hac mea translatione servare disposui. Sed et veteres tam Grecorum quam et Latinorum interpretes hec eadem continue egisse perhibentur,' the Septuagint being an example, though St. Jerome made a new version of Isaiah. 'Sanctus vero Basilius predictum Ysaïam prophetam exponens lxx duorum interpretum editione[m] mirabiliter ad litteram commentatur, eiusque commentationem ego Burgundio iudex domino tercio Eugenio beate memorie pape de verbo ad verbum transferens ex predicta lxx duorum interpretum editione facta[m?] antiquam nostram translationem in omnibus fere sum prosequutus, cum Sancti Ieronimi novam suam editionem nullatenus ibi expositam invenirem nec eam sequi ullo modo in ea commentatione possem. Psalterium quoque de verbo ad verbum de greco in latinum translatus est sermonem, et diverse ille quoque eius proferuntur apud Latinos ediciones romana < > ex equivocatione grecarum dictionum ortas esse perpendo, interpretibus modo hanc modo illam in eis assumentibus significationem.' He then passes in review the other literal translations previously made from the Greek — the Twelve Tables, the *Corpus Juris Civilis*, the *Dialogues* of Gregory the Great, Chalcidius's version of the *Timaeus*, Priscian, Boethius, the *Aphorisms* of Hippocrates and the *Tegni* of Galen, John the Scot's version of Dionysius the Areopagite, and the *De urinis* of Theophilus — and concludes: 'Si enim alienam materiam tuam tuique iuris vis esse putari, non verbo verbum, ut ait Oratius, curabis reddere ut fidus interpretis, ymo eius materiei sententiam sumens tui eam dictaminis compagine explicabis, et ita non interpretis eris sed ex te tua propria composuisse videberis. Quod et Tullius et Terentius se fecisse testantur. . . . Cum igitur hec mea translatio scriptura sancta sit et in hoc meo labore non gloriam sed peccatorum meorum et filii mei veniam Domini expectavi, merito huic sancto patri nostro Iohanni Crisostomo sui operis gloriam et apud Latinos conservans, verbum ex verbo statui transferendum, deficientiam quidem dictionum intervenientem duabus vel etiam tribus dictionibus adiectis replens, idyoma vero quod barbarismo vel metaplasmo vel scemate vel tropo fit recta et propria sermocinatione retorquens.' Preface to translation of

were authorities in a sense that the modern world has lost, and their words were not to be trifled with. Who was Aristippus that he should omit any of the sacred words of Plato?³⁷ Better carry over a word like *didascalia* than run any chance of altering the meaning of Aristotle.³⁸ Burgundio might even be in danger of heresy if he put anything of his own instead of the very words of Chrysostom. It was natural in the fifteenth century to pour contempt on such translating, even as the humanists satirized the Latin of the monks, but the men of the Renaissance did not scruple to make free use of these older versions, to an extent which we are just beginning to realize. Instead of striking out boldly for themselves, the translators of the Quattrocento were apt to take an older version where they could, touching it up to suit current taste. As examples may be cited the humanistic editions of Aristotle's *Logic*, of Chrysostom and John of Damascus, and even of Plato.³⁹ It has always been easier to ridicule Dryasdust than to dispense with him!

Apart from such unacknowledged use during the Renaissance, the translators of the twelfth century made a solid contribution to the culture of the later Middle Ages. Where they came into competition with translations from the Arabic, it was soon recognized that they were more faithful and trustworthy. At their best the Arabic versions were one remove further from the original and had passed through the refracting medium of a wholly different kind of language,⁴⁰ while at their worst they were made in haste and with the aid of ignorant interpreters working through the Spanish vernacular.⁴¹ In large measure the two sets of trans-

Chrysostom's St. John, Vatican, MS. Ottoboni Lat. 227, ff. 1 v-2, a corrupt text respecting which I owe much to the aid of Monsignore Giovanni Mercati. For specimens of Burgundio's method, see Dausend, in *Wiener Studien*, xxxv. 353-369; and cf. the parallel versions studied by Hocedez, in *Musée belge*, xvii. 109-123 (1913).

³⁷ Even to the point of rendering *re xal* by *que et*. *Rassegna bibliografica della letteratura italiana*, xiii. 12.

³⁸ *Infra*, pp. 234 f.

³⁹ *Infra*, pp. 167, 208, 240 f.; *Wochenschrift für klassische Philologie*, 1896, col. 1097; Minges, in *Philosophisches Jahrbuch*, xxix. 250-263 (1916).

⁴⁰ Eugene of Palermo remarks on the difference of Arabic idiom. G. Govi, *L'Optica di Claudio Tolomeo* (Turin, 1885), p. 3; *infra*, p. 172.

⁴¹ Cf. Rose in *Hermes*, viii. 335 ff.

lators utilized the same material. Both were interested in philosophy, mathematics, medicine, and natural science; and as most of the Greek works in these fields had been turned into Arabic, any one of these might reach the West by either route. If Plato could be found only in the Greek, Aristotle was available also in Arabic, and for most of his works there exist two or more parallel Latin versions. Theology, liturgy, and hagiography, as well as grammar, naturally came from the Greek alone, while astrology was chiefly Arabic. Nevertheless in the realm of the occult and legendary we have Kiranides and the dream-books, *Kalila and Dimna* and the Sibyl, some alchemy perhaps, and the *Quadripartitum* of Ptolemy and other bits of astrology.⁴² In many instances it was more or less a matter of accident whether the version from the Greek or that from the Arabic should pass into general circulation; thus the Sicilian translation of the *Almagest*, though earlier, is known in but four copies, while that made in Spain is found everywhere. The list of works known only through the Greek of the twelfth century is, however, considerable. It comprises the *Meno* and *Phaedo* of Plato, the only other dialogue known to the Middle Ages being the *Timaeus*, in an older version; the advanced works of Euclid; Proclus and Hero; numerous treatises of Galen; Chrysostom, Basil, Nemesius, John of Damascus, and the Pseudo-Dionysius; and a certain amount of scattered material, theological, legendary, liturgical, and occult.⁴³

The absence of the classical works of literature and history from the list of translations from the Greek is as significant as it is in the curriculum of the mediaeval universities. We are in the twelfth century, not the fifteenth, and the interest in medicine, mathematics, philosophy, and theology reflects the practical and ecclesiastical preoccupations of the age rather than the wider interests of the humanists. The mediaeval translations "were not regarded as *belles lettres*. They were a means to an end."⁴⁴ It is

⁴² Chapter V, end; Chapter X, end.

⁴³ Sabbadini, *Le scoperte dei codici: nuove ricerche*, pp. 262-265, gives a list of mediaeval versions from which Euclid, Hero, the *Geoponica*, Nemesius and others are absent.

⁴⁴ D. P. Lockwood, in *Proceedings of the American Philological Association*, xlix. 125 (1918).

well, however, to remember that these same authors continue to be read in the Quattrocento, in translations new or old; they are merely crowded into the background by the newer learning. In this sense there is continuity between the two periods. There is also a certain amount of continuity in the materials of scholarship — individual manuscripts of the earlier period gathered into libraries at Venice or Paris, the library of the Sicilian kings probably forming the nucleus of the Greek collections of the Vatican.⁴⁵ To what extent there was a continuous influence of Hellenism is a more difficult problem, in view of our fragmentary knowledge of conditions of the south. The Sicilian translators of the twelfth century are followed directly by those at the courts of Frederick II and Manfred, while in the fourteenth century we have to remember the sojourn of Petrarch at the court of Robert of Naples, and the Calabrian Greek who taught Boccaccio. The gap is short, but it cannot yet be bridged.

⁴⁵ See the studies of Heiberg, Ehrle, and Birkenmajer cited in Chapter IX, n. 35. Björnbo, "Die mittelalterlichen lateinischen Uebersetzungen aus dem Griechischen," in *Archiv für die Geschichte der Naturwissenschaften*, i. 385-394 (1909), should be consulted for later versions of mathematical works. See also the more general pages of Heiberg, "Les sciences grecques et leur transmission," in *Scientia*, xxxi. 1-10, 97-104 (1922).

CHAPTER IX

THE SICILIAN TRANSLATORS OF THE TWELFTH CENTURY¹

THE Norman kingdom of southern Italy and Sicily occupies a position of peculiar importance in the history of mediaeval culture.² Uniting under their strong rule the Saracens of Sicily, the Greeks of Calabria and Apulia, and the Lombards of the south-Italian principalities, the Norman sovereigns were still far-sighted and tolerant enough to allow each people to keep its own language, religion, and customs, while from each they took the men and the institutions that seemed best adapted for the organization and conduct of their own government. Greek, Arabic, and Latin were in constant use among the people of the capital and in the royal documents;³ Saracen emirs, Byzantine logothetes, and

¹ Based upon *Harvard Studies in Classical Philology*, xxi. 75-102 (1910), xxiii. 155-166 (1912), the first being a joint article with Professor Dean Putnam Lockwood which he kindly permits me to incorporate here. His discovery of MS. Vat. 2056 was the starting-point of the essay. For discussion, see, particularly, Heiberg, "Noch einmal die mittelalterliche Ptolemaios-Uebersetzung," in *Hermes*, xlii. 207-216; Paul Marc, in *B. Z.*, xix. 568, 569; Bresslau, in *Neues Archiv*, xxxvi. 304, xxxix. 253; and the description of MS. 2056 in the new catalogue of *Codices Vaticani Latini*.

² On the culture of southern Italy and Sicily in the twelfth century, see M. Amari, *Storia dei Musulmani di Sicilia* (Florence, 1854-72), iii. 441-464, 655 ff.; V. Rose, "Die Lücke im Diogenes Laërtius und der alte Uebersetzer," in *Hermes* (1866), i. 367-397; E. A. Freeman, *The Normans at Palermo*, in his *Historical Essays*, third series, pp. 437-476; G. B. Siragusa, *Il regno di Guglielmo I in Sicilia* (Palermo, 1885-86), i. 139-148, ii. 101-144; O. Hartwig, "Die Uebersetzungsliteratur Unteritaliens in der normannisch-staufischen Epoche," in *Centralblatt für Bibliothekswesen* (1886), iii. 161-190, 223-225, 505 f.; E. Caspar, *Roger II und die Gründung der normannisch-sicilischen Monarchie* (Innsbruck, 1904), pp. 435-472; F. Chalandon, *Histoire de la domination normande en Italie et en Sicile* (Paris, 1907), ii. 708-742, where the literary side of the subject is treated much too briefly; Haskins, *The Normans in European History* (Boston, 1915), chs. 7, 8. On the Greek element in the South, see also F. Lenormant, *La grande Grèce* (Paris, 1881-84); P. Batiffol, *L'abbaye de Rossano* (Paris, 1891); and the studies on Casule in *Rivista storica calabrese*, vi.

³ K. A. Kehr, *Die Urkunden der normannisch-sicilischen Könige* (Innsbruck, 1902), pp. 239-243.

Norman justiciars worked side by side in the royal *curia*; and it has been a matter of dispute among scholars whether so fundamental a department of the Sicilian state as finance was derived from the *diwan* of the caliphs, the *fiscus* of the Roman emperors, or the exchequer of the Anglo-Norman kings.⁴ King Roger, like his grandson Frederick II, drew to his court men of talent from every land, regardless of speech or faith: an Englishman, Robert of Selby, stood at the head of his chancery, and others from beyond the Alps found employment in his government;⁵ a Greek monk, Nilus Doxopates, wrote at his command the history of the five patriarchates which was directed at the supremacy of the Roman see; a Saracen, Edrisi, prepared under his direction the comprehensive treatise on geography which became celebrated as 'King Roger's Book.' A court where so many different types of culture met and mingled inevitably became a place for the interchange and diffusion of ideas, and particularly for the transmission of eastern learning to the West. Easy of access, the Sicilian capital stood at the centre of Mediterranean civilization, and while the student of Arabic science and philosophy could in many respects find more for his purpose in the schools of Toledo, Palermo had the advantage of direct relations with the Greek East and direct knowledge of works of Greek science and philosophy which were known in Spain only through Arabic translations or compends. Especially was a cosmopolitan court like the Sicilian favorable to the production of translations. Knowledge of more than one language was almost a necessity for the higher officials as well as for the scholars of Sicily, and Latin versions of Greek and

⁴ R. Pauli, in *Nachrichten* of the Göttingen Academy, 1878, pp. 523-540; Hartwig and Amari, in *Memorie dei Lincei*, third series, ii. 409-438; C. A. Garufi, in *Archivio storico italiano*, fifth series, xxvii. 225-263; O. von Heckel, in *Archiv für Urkundenforschung* (1908), i. 371 ff.; my article on "England and Sicily in the Twelfth Century," in *E. H. R.*, xxvi. 433-447, 641-665 (1911).

⁵ Hugo Falcandus, *Liber de regno Sicilie*, ed. Siragusa, p. 6: 'Quoscumque viros aut consiliis utiles aut bello claros compererat, cumulatis eos ad virtutem beneficiis invitabat. Transalpinos maxime, cum ab Normannis originem duceret sciretque Francorum gentem belli gloria ceteris omnibus anteferri, plurimum diligendos elegerat et propensius honorandos.' Cf. Romualdus of Salerno, in *M. G. H.*, *Scriptores*, xix. 426; John of Salisbury, *ibid.*, xx. 538; John of Hexham, *ibid.*, xxvii. 15; ibn-al-Atir, in Amari, *Biblioteca Arabo-Sicula*, i. 450.

Arabic works were sure to be valued by the northern visitors of scholarly tastes who came in considerable numbers to the South and wished to carry back some specimen of that eastern learning whose fame was fast spreading in the lands beyond the Alps.

The achievements of the Sicilian scholars of the twelfth century are in part known, thanks particularly to the studies of Amari and Valentin Rose, but the sources of information are of a very scanty sort, and new material is greatly needed. We can now add Ptolemy's *Almagest* to the list of works known to have been turned into Latin in Sicily, and, with that as our starting-point, bring out additional facts concerning the Sicilian translators and their work.

The mediaeval versions of the *Almagest* we have discussed in another connection.⁶ The earliest of those made from the Arabic, that of Gerard of Cremona, was completed in 1175, and three others are known before George Trapezuntius made his version directly from the Greek in 1451.⁷ Of these the most interesting is what appears to be the earliest Latin version of all, made in Sicily about 1160 and based directly upon the original Greek. Four manuscripts are known:

A. MS. Vat. Lat. 2056, belonging to the fourteenth or possibly to the very end of the thirteenth century, a well-written parchment codex formerly in the possession of Coluccio Salutati.⁸ The translation of the *Almagest* occupies the ninety-four numbered folios,⁹ and there are four

⁶ Chapter V, end.

⁷ Voigt, *Die Wiederbelebung des classischen Alterthums*², ii. 141.

⁸ F. 88 v: 'Liber Colucii.' F. 94 v: 'Liber Colucii Pyeri de Salutatis.'

⁹ The *incipit* and *explicit* of each book are given for identification of other possible copies: F. 1-1 v, preface, as printed below, pp. 191-193. Ff. 1 v-9, book i: 'Valde bene qui proprie philosophati sunt, o Sire, videntur michi sequestrasse theoreticum philosophie a practico . . . atque inde manifestum est quoniam et reliquorum taetartimorum ordinatio contingit eadem omnibus in unoquoque eisdem contingentibus propter rectam speram, id est equinoctialem, sine declinatione ad orizontem subiacet.' Ff. 9 v-26, book ii: 'Pertranseutes in primo sintaxeos de totorum positione capitulatim debentia prelibari . . . minutione vero quando occidentalior subiacens.' Ff. 26-33, book iii: 'Assignatas a nobis in ante hoc coordinatis et universaliter debentibus de celo et terra mathematice prelibari . . . piscium gradus .vi. .xlv., anomalie vero .iii.^a. g[radius] et .viii. ad proximum sexagesima piscium.' Ff. 33-41, book iv: 'In eo quod ante hoc coordinantes quecunque utique quis videat contingentia circa solis motum . . . in coniugationibus lune et ipsi

fly-leaves, partly in blank and partly covered with astronomical notes and symbols in a hand different from the text. The text averages fifty lines to a page, and the written page measures ca. 14.7 by 25.5 centimetres. There are no illustrations in the text, but the outer margins have many geometrical figures, beautifully drawn and often of great intricacy, and lettered in a hand which seems to be that of the original scribe. The text and the titles of chapters which appear at the head of each book are written in a single hand, but the hands of several correctors and annotators appear both in the text and in the tables. This, the only complete MS. so far known of the Sicilian version, was discovered by Professor Lockwood in the spring of 1909 and described in *Harvard Studies in Classical Philology* (xxi. 78 f.) in 1910. See now the new catalogue of the Vatican MSS. (1912); and Heiberg in *Hermes*, xlv. 207 ff. (1911).

B. Florence, Biblioteca Nazionale, Conventi Soppressi, MS. A. 5. 2654. Written in a southern hand of ca. 1300. Lacks preface and the first twelve chapters of book i. Discovered by Björnbo and indicated in *Archiv für die Geschichte der Naturwissenschaften*, i. 392 (1909); described by Heiberg, "Eine mittelalterliche Uebersetzung der Syntaxis

eclipsibus consonius maxime nostris ypothesibus inventis.' Ff. 41-47 v, book v: 'Causa vero earum que ad solem sinzugiarum et sinodicarum vel panselinicarum . . . periferiam maiorem esse ea que est .zb. habuimus et .aiz. angulum g[radus] .xxxv. et d[imidium], quod propositum erat demonstrando.' Ff. 47 v-55 v, book vi: 'Deinceps ergo contingente eo quod circa eclipticas sinzugias solis et lune negotio . . . universalis recipientes lunarium partes primas et extremas eclipsium et completionum significationes.' Ff. 56-61 v, book vii: 'Pertranseunt in ante hoc coordinatis, o Sire, et circa rectam et circa inclinatam speram contingentia . . . ' [table]. Ff. 62-66 v, book viii: [Table]'. . . spatia sumptis ad solem significationibus et in ipsis in parte lune acclinationibus.' Ff. 66 v-72 v, book ix: 'Igitur quecunque quidem quis et de fixis stellis velut in capitulis commemorat secundum quantum usque nunc apparentia processum conceptionis . . . tantis vero i. et .vi. superant chelarum g[radus] qui secundum observationem.' Ff. 72 v-76 v, book x: 'Igitur stelle quidem mercurii ypotheses et quantitates anomaliarum, . . . optinebit manifestum quoniam et secundum expositum epochis temporis cancri g[radus] .xvi. .xl.' Ff. 76 v-83 v, book xi: 'Demonstratis circa martis stellam periodicis motibus et anomalis et epochis . . . et collectum g[raduum] numerum dementes ab eo quod tunc apoguo stelle, in apparentem ipsius progressionem incuremus.' Ff. 83 v-88 v, book xii: 'His demonstratis consequens utique erit et secundum unamquamque quinque erraticarum factas precessiones . . . tertio vero hesperias et rursus quarto eoas et quinto esperias, et est canon huiusmodi.' [table]. Ff. 88 v-94 v, book xiii: 'Delictis autem in eam que de quinque erraticis coordinationem adhuc duobus his et secundum latitudinem . . . et que ad commoditatem solam contemplationis sed non ad ostentationem commemoratio suggerebat, proprium utique nobis hic et commensurabilem recipiat finem presens negotium.'

des Ptolemaios," in *Hermes*, xlv. 57-66 (1910). Neither of these scholars then knew of the existence of A.

C. Vatican, MS. Pal. lat. 1371, ff. 41-97 v; thirteenth century. Complete only as far as 6, 10, including the preface, but offering a text superior to A in accuracy and in the mechanical execution of the illuminations, though omitting some of the tables. The scribe seems to have tried to improve the text, especially in the order of words. Opposite the title an Italian hand of the fourteenth century has written in the margin 'Translatu in urbe Panormi tempore regis Roggerii per Hermannu de greco in latinu.'¹⁰ Discovered by me in June, 1911, and described in *Harvard Studies*, xxiii. 155-166 (1912). Since noted by Monsignore A. Pelzer, in *Archivum Franciscanum historicum*, xii. 60 (1919), who dates it '12^e-13^e siècle,' and the marginal note '13^e siècle.'

D. Wolfenbüttel, MS. Gud. lat. 147, f. 2. Preface only; see above, Chapter V, pp. 106-108.

In the preface, printed at the close of the present chapter, the translator, writing to the teacher of mathematics to whom he dedicates his work, says (lines 23-37) that, as he was laboring over the study of medicine at Salerno, he learned that a copy of Ptolemy's great treatise had been brought from Constantinople to Palermo, as a present from the Greek emperor, by an ambassador of the Sicilian king. This emissary, by name Aristippus, he set out to seek, and braving the terrors of Scylla and Charybdis and the fiery streams of Etna — this last doubtless on the way to Catania, where we know Aristippus was archdeacon — he found him at Pergusa,¹¹ near the fount, engaged, not without danger, in investigating the marvels of Etna. Our Salernitan scholar's astronomical knowledge was not, however, sufficient to permit his attempting at once the translation of the book which he had

¹⁰ See above, Chapter III, no. b.

¹¹ This name gives rise to a difficulty, for the lake of Pergusa, the fabled scene of the rape of Proserpine (Ovid, *Métam.* 5, 386; Claudian, *De rapto Proserpinae*, 2, 112), lies in the vicinity of Castrogiovanni, the ancient Enna, at so considerable a distance from Etna that there would be no possible danger to an observer. Cf. *Hermes*, xlv. 208, n. The phrase *ethnea miracula* would seem too definite to be interpreted as volcanic phenomena which might occur in the region of Pergusa at a time of disturbance of Etna. Very possibly the author meant some fount in the neighborhood of Etna otherwise unknown to us.

sought, even if there had been no other obstacles in the way, and, already familiar with Greek (*preinstructus*), he applied himself diligently to the preliminary study of the *Dala*, *Optica*, and *Catoptrica* of Euclid and the *De motu* of Proclus. When ready to attack the *Almagest* he had the good fortune to find a friendly expositor in Eugene, a man most skilled in Greek and Arabic and not unfamiliar with Latin, and succeeded, contrary to the desire of an ill-tempered man,¹² in turning the work into Latin.

The date of these events can be fixed with some definiteness owing to the mention of Aristippus, who was an important personage in Sicilian history in the reign of William I. Made archdeacon of Catania in 1156, in which year he is found with the king at the siege of Benevento, Henricus Aristippus was in November, 1160, after the murder of the emir of emirs, Maio, advanced to the position of royal *familiaris* and placed in charge of the whole administration of the kingdom; but in the spring of 1162, while on the way to Apulia, he was suddenly seized by the king's order and sent to Palermo to prison, where he shortly afterward died.¹³ The meeting at the fount of Pergusa was thus anterior, not only to the events of 1162, but probably also to the promotion of 1160, after which the necessity of constant presence at the *curia* left no time for scientific pursuits. If we follow the diplomatic history of Sicily back to the assumption of the royal title in 1130, we find only three embassies to Constantinople, and the relations of the Greek emperor and the Sicilian king were such during this period that it is quite unlikely that there were others. The first series of

¹² 'Contra viri discolori voluntatem.' This may be connected with the unexplained obstacle ('cum occulte quidem alia . . . prohiberent') referred to above, but if the opposition of an unnamed person is meant, we should expect *cuiusdam*, while the mention of Eugene's assistance makes one hesitate to apply the reference to him, as does Heiberg (*Hermes*, xlv. 209, no. 1). I give Heiberg's interpretation of *preinstructus*, though one would expect *iam instructus* if the knowledge of Greek had been previously acquired.

¹³ Except for his prologues to the *Meno* and *Phaedo* of Plato (*Hermes*, i. 386-389) and for the text which we print below, the facts concerning the life of Aristippus are known only from the chronicle of Hugo Falcandus, ed. Siragusa, pp. 44, 55, 69, 81. See Siragusa, *Il regno di Guglielmo I*, i. 144-145; ii. 18, 51-52, 107-112; Kehr, *Die Urkunden der normannisch-sicilischen Könige*, pp. 80 (on the date of the death of Aschettinus, predecessor of Aristippus as archdeacon), 82-83; Chalandon, *Domination normande*, ii. 174, 272, 273, 276, 277, 282, 289.

negotiations falls in 1143 and 1144, when a mission sent to arrange a marriage alliance failed of its purpose because of the death of the Emperor John Comnenus and when a second set of ambassadors was put in prison by his son Manuel.¹⁴ In neither of these instances is it at all probable that the emperor presented a valuable manuscript to King Roger, nor would Aristippus have been a man of sufficient importance to be employed in so responsible a position. For similar reasons he can hardly have been one of the emissaries despatched by William I on his accession in 1154, for these were all bishops and were not well received.¹⁵ By 1158, on the other hand, when peaceful relations were resumed between the two sovereigns, Aristippus occupied a higher position, and the Emperor Manuel, who had not been successful in the preceding campaigns, had every reason to deal generously with the envoys who concluded the peace of that year.¹⁶ If, accordingly, the manuscript of the *Almagest* was brought to Sicily at this time,¹⁷ the meeting with Aristippus can hardly have been much earlier than 1160, and it certainly was not more than two years later. Some time must be allowed for the studies described and for the actual labor of translation, but three or four years would suffice for all this, and we can with reasonable certainty conclude that the translation was completed at least ten years before Gerard of Cremona produced his version in 1175.

Of the name and nationality of the author of this translation nothing is revealed beyond the fact that he is a stranger to southern Italy and Sicily. The statement of the gloss that his name was Hermann we have already had occasion to examine and reject.¹⁸ He calls himself a tardy follower of philosophy (*philoso-*

¹⁴ Caspar, *Roger II*, pp. 362-364; Chalandon, *o. c.*, ii. 127-129.

¹⁵ Cinnamus, 3, 12 (ed. Bonn, p. 119): ἦγον οὖν ἄνδρες ἐπισκοπικὸν ἕκαστος περιελμμενὸς ἀρχόν. Cf. Chalandon, *Domination normande*, ii. 188 f. Nor does Aristippus in 1156 (*Hermes*, i. 388) mention the *Almagest* in his enumeration of notable books available in Sicily.

¹⁶ Siragusa, *Il regno di Guglielmo I*, i. pp. 74-76; Chalandon, *o. c.*, i. 253 f.

¹⁷ Beyond the fact that there was an eruption before 1162, the chronology of Mount Etna's eruptions in the period preceding 1169 is not known with sufficient fulness and exactness to be of assistance in dating the reference in our text. Cf. Sartorius von Waltershausen, *Der Aetna* (Leipzig, 1880), i. 210-211; Amari, *Biblioteca Arabo-Sicula*, i. 134-135.

¹⁸ Supra, Chapter III, p. 53.

phie tardus assecla) in almost the same words used by Hermannus Contractus and Adelard of Bath,¹⁹ and seeks to defend the divine science against the attacks of the profane; but his main interest is plainly in the studies of the *quadrivium*, in which he has been instructed by the master to whom his version of the *Almagest* is dedicated, and which he defends at some length from the criticism of the religious.²⁰ He must have been familiar with Euclid's *Elements* before his arrival in Sicily, for he is able to take up the more advanced applications of geometry contained in Euclid's other works, and he has made at least a beginning in medicine. He has picked up an Arab proverb, and can quote Boethius and Remigius of Auxerre, as well as Ovid. He also quotes, though perhaps not at first hand, Aristotle's *De caelo* from a Greek source,²¹ and his own knowledge of Greek is respectable.²²

How fully our translator succeeded in mastering the difficult subject-matter of Ptolemy's treatise is a question that must be left to specialists in ancient astronomy. Granted, however, that his work was done with reasonable intelligence, it has an importance for the study of the Greek text far superior to the version of Gerard of Cremona, who worked from the Arabic with the aid of a Spanish interpreter.²³ Not only did the author of the Sicilian translation draw directly from the original Greek, but, like other mediaeval translators from this language, he made a word-for-word rendering which, while not so painfully awkward and school-boyish as the translations of Aristippus,²⁴ is still very close and literal.²⁵ For purposes of textual criticism a translation of this

¹⁹ Migne, cxliii. 381; *Bullettino*, xiv. 91.

²⁰ Cf. Heiberg, in *Hermes*, xlv. 210-213.

²¹ Line 5: 'earum quas Aristotiles acrivestatas vocat artium doctrina.' The reference is evidently to the *De caelo*, 3, 7: μάχεσθαι ταῖς ἀκριβεστάταις ἐπιστήμαις, i. e., αἱ μαθηματικαί. No other mention of the *De caelo* has been found in the West before the translation which Gerard of Cremona is said to have made from the Arabic. Cf. Wüstenfeld, p. 67; Steinschneider, *E. U.*, no. 46 (11); id., *Centralblatt für Bibliothekswesen*, Beiheft xii. 55-57 (1893).

²² Heiberg, in *Hermes*, xlv. 210.

²³ On Gerard's method see above, Chapter I, n. 57. Yet it has been proposed (Manitius, in *Deutsche Literaturzeitung*, 1899, col. 578) to use his translation as an aid to the establishment of the Greek text.

²⁴ See the specimen printed below, n. 42.

²⁵ Generally the number and order of the words in the Latin corresponds exactly with the Greek, although a genitive absolute in the Greek may be rendered by a

sort is not much inferior to a copy of the Greek text, and as there are but three existing manuscripts of the *Μαθηματικὴ Σύνταξις* anterior to the twelfth century, such a translation would deserve careful collation and study. Heiberg, however, has shown that ours is based upon his MS. C, now no. 313 at St. Mark's, apparently the very codex of Aristippus, but through a lost copy which had probably been emended by Eugene.²⁶

However great its merits as a faithful reproduction of the original, it is clear that our translation exerted far less influence than that of Gerard of Cremona upon the study of mathematical astronomy. Gerard himself was plainly unaware of its existence when he started for Toledo, although when he came to translate Aristotle's *Meteorologica* he knew of Aristippus' rendering of a portion of that work,²⁷ and the evidence of citations and numerous surviving copies shows that Gerard's was the version in current use from the close of the twelfth century to the second half of the

cum-clause in the Latin, or the optative with *ἄν* be represented by *utique* with the future indicative or subjunctive; *ὅτι* regularly becomes *quoniam*. A characteristic practice is the use of *id quod* when a modifier, other than a simple adjective, stands in the attributive position in the Greek; e. g., *ἡ τῶν δλων θεωρία* = ea que universorum speculatio. This Grecism occurs in the translator's own composition; see the preface, l. 18: *ad eam que astrorum*, which would equal *ἐς τὴν τῶν ἀστρον.* In the handling of technical terms the Greek words are often merely transliterated (for an example see the beginning of book v, printed above, n. 9), but this is not done with any consistency (e. g., *συζύγια* is rendered by both *sinzugia* and *coniugatio*, and *συνταξις* may appear as *sintaxis* or as *coordinatio*). The following passage from the opening chapter of the first book may serve as a more connected specimen of the translation:

VAlde bene qui proprie philosophati sunt, o Sire, videntur michi sequestrasse theoreticum philosophie a practico. Et enim si accidit (MS. accit) et practico prius hoc ipsum theoreticum esse, nichilominus utique quis inveniet magnam existentem in ipsis differentiam; non solum quod moralium quidem virtutum quedam multis et sine disciplina inesse possunt, eam vero que universorum speculationem absque doctrina consequi impossibile, sed et eo quod ibi quidem ex ea que in ipsis rebus est continua operatione, hic autem ex eo qui in theorematibus processu, plurima utilitas fiat. Inde nobis ipsis duximus competere actus quidem in ipsarum imaginationum investigationibus ordinare, ut nec in minimis eius que ad bonum et bene dispositum statum considerationis obliviscamur. Scole vero dare plurimum in theorematum multorum et bonorum existentium doctrinam, precipue vero in eam que eorum que proprie mathematica nominantur. . . .'

²⁶ *Hermes*, xlv. 60-66, xlvi. 213-215.

²⁷ See below, n. 48.

fifteenth.²⁸ On the other hand, while only four manuscripts of the earlier translation have been found, this was not wholly forgotten. These manuscripts are copies, considerably posterior to the date of translation, and as one of them formed part of the library of Coluccio Salutati, the influence of this version can be followed into the period of the early Renaissance. Salutati's correspondence makes no mention of this manuscript, or indeed of the *Almagest*,²⁹ but it is altogether likely that this was one of the sources of his acquaintance with the opinions of famous astronomers,³⁰ including Ptolemy.

Of the incidental information furnished by the preface, special interest attaches to the fact that the manuscript of the *Almagest*, probably the very codex now in Venice,³¹ was brought to Sicily as a present from the Greek emperor. We know that Manuel Comnenus took a special interest in astronomical and astrological studies,³² and it is characteristic of the culture of the court of Palermo, as well as of the emperor's own tastes, that the great work of Ptolemy should be thought an appropriate gift to the Sicilian envoys. There is reason for thinking that other manuscripts went at this time from Constantinople to enrich Italian libraries. Certain early treatises on alchemy mention the Emperor Manuel in a way that suggests his reign as the period when

²⁸ Thus the Bibliothèque Nationale has ten copies of Gerard's translation (MSS. Lat. 7254-60, 14738, 16200, 17864), one of which (MS. Lat. 14738) is of the close of the twelfth century. The use of a version from the Arabic by Roger Bacon can be shown by the appearance in his citation (*Opus majus*, ed. Bridges, i. 231) of the form Abrachis, the Arabic corruption of Hipparchus in *Almagest*, 5, 14. Albertus Magnus uses Gerard's version (Pelzer, in *Revue néo-scholastique*, 1922, pp. 344, 479 f.), as does the *Speculum astronomie* commonly ascribed to him. As late as 1512 a copy of Gerard's version was made at Salamanca: Madrid, Biblioteca del Palacio, MS. 2. L.12. Another version from the Arabic was also current in Spain: see Chapter V, n. 150. Thomas Aquinas, however, knew a translation from the Greek: Jourdain, pp. 397 f.

²⁹ On the likelihood of its use, see Novati, *Epistolario di Coluccio Salutati*, iv, 1, p. 90, n. 1, who however supposes that Gerard's translation was employed.

³⁰ *Epp.*, 4, 11; 7, 22; 14, 4, 12, 24 (ed. Novati, i. 280, ii. 348, iv, 1, pp. 12, 86, 226). Cf. Voigt, *Wiederbelebung des classischen Alterthums*, i. 204. A copy of the Sicilian translation (not MS. A) was at Bologna in 1451: Sorbelli, *La biblioteca capitolare di Bologna nel secolo xv*, p. 93, no. 36.

³¹ Heiberg, in *Hermes*, xlv. 213.

³² Chapter X, n. 174.

they were brought to the West,³³ and, as we shall see below, the Latin text of the prophecy of the so-called Erythraean Sibyl expressly states that it was translated from a copy brought from the treasury of the Emperor Manuel (*de aerario Manuelis imperatoris eductum*). Plainly manuscripts from the imperial library must be taken into account, as well as ecclesiastical and commercial influences, in tracing the intellectual connections between the Greek Empire and the West in the century preceding the Fourth Crusade.³⁴

It is significant in relation to Latin learning, not only that the Sicilian court brought together an important library of Greek manuscripts, but that this collection probably passed, in part, from Manfred's library to that of the Popes, and thus became the nucleus of the Greek collections of the Vatican. This suggestion, first made by Heiberg, has been confirmed by Ehrle and Birkenmajer,³⁵ and opens up interesting possibilities of further inquiry.

In mentioning the envoy Aristippus and the expositor Eugene our text introduces us to the two leading figures among the Sicilian translators of this period. That King William's minister Aristippus was a man of learning in Greek and Latin literature had long been known from the chronicle of one of his associates in the royal administration,³⁶ but it was reserved for Valentin Rose to discover and publish in 1866 the prologues to the translation of the *Meno*

³³ J. Wood Brown, *Michael Scot* (Edinburgh, 1897), pp. 83-85. Brown conjectures that alchemical MSS. were brought to Sicily as a result of the Greek campaigns of George of Antioch, but even if the MSS. with which this admiral enriched the church of the Martorana were thus secured, they could not have been obtained from the imperial library, and it is hard to explain the mention of the emperor's name on any other ground than that the treatises had been in his possession.

³⁴ See the following chapter.

³⁵ Heiberg, *Les premiers MSS. grecs de la bibliothèque papale*, in *Oversigt of the Danish Academy*, 1891, pp. 315-318; id., in *Hermes*, xlv. 66, xlv. 215; Ehrle, *Nachträge zur Geschichte der drei ältesten päpstlichen Bibliotheken*, in *Festgabe Anton de Waal* (Rome and Freiburg, 1913), pp. 348-351; Birkenmajer, *Vermischte Untersuchungen* (Beiträge, xx, no. 5, 1922), pp. 20-22. The Sicilian library appears also to have suffered losses before Parma in 1248: infra, Chapter XIV, n. 38.

³⁶ Hugo Falcandus, ed. Siragusa, p. 44: 'mansuetissimi virum ingenii et tam latinis quam grecis litteris eruditum.' That the author of this chronicle was a member of the Sicilian *curia*, very possibly a notary, is shown by Besta, "Il 'Liber de Regno Siciliae' e la storia del diritto siculo," in *Miscellanea di archeologia di storia e di filologia dedicata al Prof. A. Salinas* (Palermo, 1907), pp. 283-306.

and *Phaedo* of Plato which give us an idea of the range of his scholarship and constitute our chief source of information respecting the intellectual life of the Sicilian court.³⁷

Dedicating his version of the *Phaedo* to a favorite of fortune (*roborato fortune*³⁸) who is returning to his home in England, Aristippus pleads with him to remain in Sicily, where he has at his disposal not only the wisdom of the Latins but a Greek library and the aid of that master of Greek literature, Theoridus of Brindisi,³⁹ and of Aristippus himself, useful as a whetstone if not as a blade. In Sicily he will have access to the *Mechanics* of Hero, the *Optics* of Euclid, the *Posterior Analytics* of Aristotle, and other philosophical works. Best of all he will have a king whose equal cannot be found — *cuius curia schola comitatus, cuius singula verba philosophica apofthegmata, cuius questiones inextricabiles, cuius solutiones nihil indiscussum, cuius studium nil relinquit intemptatum*. It is, we learn from the prologue to the *Meno*, at the king's order that the archdeacon has begun a translation of Gregory Nazianzen, and at the instance of his chief minister, Maio, and the archbishop of Palermo that he has undertaken to render Diogenes Laertius into Latin. Neither of these, if ever completed, has reached us,⁴⁰ but the translations of the *Phaedo*⁴¹ and

³⁷ *Hermes*, i. 386-389. The prologues are reprinted by Hartwig, *Archivio storico per le province napoletane*, viii. 461-464.

³⁸ See below.

³⁹ Otherwise unknown; he is not the 'Teuredus noster grammaticus' of John of Salisbury (Rose, *o. c.*, p. 380; Webb in *E. H. R.*, xxx. 658-660). He may possibly have been the *λεπτα καλὸν τῆς Βρεθέρου* with whom Eugene the admiral exchanged verses: *B. Z.*, xi. 437-439. In any case this priest should be added to the list of west-Greek poets of the twelfth century.

⁴⁰ Unless, as Rose suggests, this translation be the source of the passages which John of Salisbury and others cite from the portion of Diogenes Laertius now lost. Cf. Webb, *Ioannes Saresberiensis Policraticus* (Oxford, 1909), i, pp. xxviii, 223, note. Mr. Webb suggests to me that the citations of Gregory Nazianzen in the *Policraticus* (ii. 91, 167, 170) may be derived from the version of Aristippus.

⁴¹ The *Phaedo* is found at Erfurt, MS. O. 7, ff. 1-18 v (Schum, *Verzeichniss der Amplonianischen Handschriften-Sammlung*, p. 673); at Cues, Spitalbibliothek, MS. 177, ff. 58-89; in the Bibliothèque Nationale, MS. Lat. 6567 A, ff. 6-35, and MS. 16581, ff. 95-162 v (formerly MS. Sorbonne 1771; see Cousin, *Fragments — philosophie scholastique*, Paris, 1840, p. 406); in the Vatican, MS. Vat. lat. 2063, ff. 69-115; at Florence, Biblioteca Nazionale, MS. Palatino 639 (*I codici Palatini della R. Biblioteca Nazionale Centrale di Firenze*, ii. 207); Venice, St. Mark's, Cl. X, MS.

*Meno*⁴² are preserved in several manuscripts and constituted the only medium through which these dialogues were known to Latin Europe until the new translations of the fifteenth century.⁴³ Men like Petrarch and Salutati were dependent upon a Latin version of the *Phaedo* which was doubtless that of Aristippus,⁴⁴ and the author of the translation which ultimately superseded his, Leonardo Bruni Aretino, seems, like more than one humanistic trans-

138 (Valentinelli, *Bibliotheca Ms. ad S. Marci Venetiarum*, iv. 88); University of Leyden, MS. 64 (Rashdall, *Universities of the Middle Ages*, ii. 745); Oxford, Corpus Christi College, MS. 243, ff. 115 v-135 v. For a specimen of the translation see Cousin, *l. c.* (also in his *Oeuvres*, 1847, third series, ii. 325). A marginal note in the Corpus Christi MS. (f. 135 v) comments: 'Hic liber omnium librorum Platonis est agrestissimus, vel quia Socrates in die mortis inornate locutus est et simpliciter, vel quia Plato interitum magistri commemorans pre dolore stilum non ornauit, vel quia etiam Plato quasi fidem et quod omni modo credi voluit hic predicans non obscuro verborum ornatu sed simplici relatione exequutus est.'

⁴² The *Meno* is found at Erfurt, in Amplonian MS. O. 7 and MS. Q. 61 of the University; at Cues, Spitalbibliothek, MS. 177, ff. 89 v-100 v; and in Corpus Christi College, MS. 243, ff. 184 v-193 v (Rose, *o. c.*, p. 385). The beginning and end of the text of the Corpus MS. may serve as a specimen of the translation:

'*Menon*. Habes mihi dicere, o Socrate, utrum docile virtus, seu non docibile verum usu et conversacione comparabile, sive neque usu et conversacione comparabile ceterum natura inest hominibus, sive alio aliquo modo. *Socrates*. O Meno, hactenus quidem Tessali laudabiles erant inter Grecos et ammirandi effecti sunt in re equestri (MS. sequestri) et divitiis, nunc autem, ut mihi videtur, etiam in sapientia et non nullatenus tui amatoris Aristippi cives Larissaei. Huius rei utique vobis causa est Gorgias. . . . Nunc autem mihi utique hora aliquo ire. Tu autem hec que ipse persuasus es persuade eciam peregrinum istum Anitum uti micior fiat, quia si persuaseris hunc est [sic] quoniam et Atheniensibus proderis etc. Finit Menon Platonis scriptus per Fredericum Naghel de Trajecto anno domini .mccc. xxiii. dominica infra octavas ascensionis in alma universitate Oxoniensi.'

⁴³ It would not be strange if the selection of these particular dialogues of Plato was influenced by the fact that they are the only ones which name an Aristippus. On mentions of the *Phaedo* in the Middle Ages see Rose, *o. c.*, p. 374; Delisle, *Cabinet des Mss.*, ii. 530, iii. 87; Roger Bacon, *Opus majus*, ed. Bridges, ii. 274; L. Gaul, *Albertis des Grossen Verhältnis zu Plato* (Beiträge, xii, no. 1, 1913), pp. 22-25. Although no other direct source of these citations is known, they are usually not sufficiently specific to enable us to recognize Aristippus' version; but a copy of this was in the library of the Sorbonne at the beginning of the fourteenth century (Delisle, *o. c.*, iii. 87) and is doubtless to be identified with the MS. given to this library by Geroud d'Abbeville which is now MS. Lat. 16581 of the Bibliothèque Nationale (Delisle, ii. 148). Cf. Birkenmajer, *Ryszarda de Fournival*, pp. 70, 73.

⁴⁴ Nohac, *Pétrarque et l'humanisme*, ii. 140, 141, 241; Novati, *Epistolario di Coluccio Salutati*, ii. 444, 449, iii. 515. MS. Lat. 6567 A belonged (f. 35 v) to 'M. Iacobi Finucii de Castro Aretini.' See also the conjectures of F. Lo Parco, *Petrarca e Borsilao* (Reggio, 1905).

lator, to have had at hand a copy of the mediaeval rendering.⁴⁵ Both dialogues were copied at Oxford as late as 1423,⁴⁶ and both are found in a collection of Latin translations of Plato which was used by Nicholas of Cusa in his Platonic studies.⁴⁷ Aristippus was also the author of the standard translation of the fourth book of Aristotle's *Meteorologica*, which passed into circulation so quickly that Gerard of Cremona did not find it necessary to include this book in his version;⁴⁸ and the prologue to the *Phaedo* indicates still further literary activity.⁴⁹

To the list of Aristippus's translations our text makes no additions, but it shows him under a new aspect as the intermediary in bringing the *Almagest* and, doubtless, other manuscripts from Constantinople to Sicily. Even more noteworthy is the glimpse it affords of his observations of Mount Etna, for the actual examination of such natural phenomena was a rare thing in mediaeval learning, and the willingness of the translator of the *Meteorologica* to go beyond his authorities, even at some personal risk, reveals a spirit which reminds us less of the schoolmen than of the death of the elder Pliny.

The translation of the *Phaedo* by Aristippus was, as we learn from the prologue, begun at the siege of Benevento, in the spring of 1156, and finished after the author's return to Palermo. It is dedicated to a certain *Roboratus*, or *Roboratus fortune*, who is about to return from Sicily to his home in England, where Aristippus reminds him he will not have at his disposal the scientific and philosophical writings of the Greeks nor the stimulus of the

⁴⁵ Luiso, "Commento a una lettera di L. Bruni," in *Raccolta di studii critici dedicata ad Alessandro d'Ancona* (Florence, 1901), p. 88. The humanistic version of the *Meno* was the work of Marsiglio Ficino.

⁴⁶ Supra, n. 42. Cf. Coxe, *Catalogus*, on this MS.

⁴⁷ Kraus, "Die Handschriften-Sammlung des Cardinals Nicolaus v. Cusa," in *Serapicum*, xxvi. 74 (1865), codex K 1; Marx, *Verzeichnis der Handschriften-Sammlung des Hospitals zu Cues* (Trier, 1905), p. 165, MS. 177.

⁴⁸ Rose, *o. c.*, p. 385. See now F. H. Fobes, "Medieval Versions of Aristotle's Meteorology," in *Classical Philology*, x. 297-314 (1915); and his edition of the Greek text, Cambridge, 1919; and cf. C. Marchesi, "Di alcuni volgarizzamenti toscani," in *Studi Romanzi*, v. 123-157 (1907). Hammer-Jensen argues that the fourth book is not Aristotelian: *Hermes*, l. 113-136 (1915).

⁴⁹ Rose, p. 388: 'atqui theologica, mathematica, meteorologica tibi propono theoremata.'

literary circle which had gathered around King William I. *Rob-oratus*, as Rose long since pointed out,⁵⁰ is probably a play upon *Robertus*, but the further identification with Robert of Selby has been generally rejected, since King Roger's chancellor was not a scholar and is not heard of after he leaves office in 1154.⁵¹ I venture to suggest another Englishman who is known to have been in Sicily at this time, Robert of Cricklade, prior of St. Frideswide's at Oxford from before 1141 until after 1171,⁵² and author, not only of a biography of Becket and various theological commentaries, but also of a *Defloratio*, in nine books, of Pliny's *Natural History*, which he dedicates to King Henry II.⁵³ Contributing in 1171 or early in 1172 to the collection of St. Thomas' miracles which was already in process of formation, he narrates his own miraculous recovery from a disease of the leg which he had contracted while journeying from Catania to Syracuse in the midst of a sirocco more than twelve years before.⁵⁴ The visit to Sicily, whose occasion he does not care to set forth,⁵⁵ and from which he returned to England by way of Rome, can be placed even more definitely in 1158, when he secured, 26 February, from Adrian IV at the Lateran a detailed confirmation of the possessions of his

⁵⁰ *Hermes*, i. 376.

⁵¹ Cf. Hartwig, in *Archivio storico napoletano*, viii, 433; Siragusa, *Guglielmo I*, ii. 111; K. A. Kehr, *Urkunden*, p. 77, n. 6. Rose's identification of Aristippus with the *grecus interpres* of John of Salisbury (cf. *Policraticus*, ed. Webb, i, pp. xxv f.) is also highly conjectural.

⁵² He is addressed in a bull of Innocent II of 8 January 1141 (*Cartulary of the Monastery of St. Frideswide*, ed. Wigram, Oxford Historical Society, 1895, i. 20, no. 15), and in a bull of Alexander III which from the Pope's itinerary may belong to 1171, 1172, or 1181 (*ibid.*, ii. 95, no. 792).

⁵³ Tanner, *Bibliotheca Britannico-Hibernica* (London, 1748), p. 151; Hardy, *Descriptive Catalogue* (Rolls Series), ii. 291; *Oxford Collectanea*, ii. 160-165; *Dictionary of National Biography*, xlviii. 368, 369; Wright, *Biographia Britannica literaria*, ii. 186, 187; Rück, "Das Excerpt der Naturalis Historia des Plinius von Robert von Cricklade," in Munich *Sitzungsberichte*, phil.-hist. Kl., 1902, pp. 195-285.

⁵⁴ 'Preteritis iam ferme duodecim annis aut eo amplius cum essem in Sicilia et vellem transire a civitate Catania usque ad Syracusam, ambulabam secus mare Adriaticum; sic enim se protendebat via.' *Materials for the History of Thomas Becket* (Rolls Series), ii. 97, 98; *M. G. H., Scriptores*, xxvii. 34. Also, somewhat more fully, in *Thómas Saga Erkebyskups* (Rolls Series), ii. 94-97, 284; see the introduction, ii, pp. lxxiv, xcii-xciv.

⁵⁵ *Thómas Saga*, ii. 94.

priory.⁶⁶ Indeed, as the Italian sojourn would seem to have been a long one,⁶⁷ he may also have been present at Benevento, 13 March 1156, when the Pope issued an order in his behalf to the bishop of Lincoln.⁶⁸ The coincidence of date, the visit to Catania, where Aristippus was archdeacon, and to Syracuse, whose library Aristippus especially mentions,⁶⁹ Robert's reported knowledge of Hebrew,⁶⁰ and his interest in natural science,⁶¹ all combine to render it highly probable that he is the translator's English friend. If this be the case, another link is found in the intellectual connections between England and Sicily in the reign of Henry II.⁶² Very likely Robert's associations with the South began still earlier than 1156, for personal visits to Rome were probably necessary to secure the confirmation of the monastery's possessions in 1141⁶³ and to prosecute its claims against the monks of Oseney ten years later.⁶⁴ The prior's interest in secular learning seems to have been a thing of his earlier years,⁶⁵ while his theological writings, one of which is posterior to 1170,⁶⁶ fall rather in the later period of his

⁶⁶ *Cartulary of St. Frideswide's*, i. 27, no. 23. The bull of 27 February *sine anno* (*ibid.*, ii. 327, no. 1125) was doubtless issued at the same time.

⁶⁷ The priory lost the island of Medley during his absence. *Ibid.*, i. 33, no. 30.

⁶⁸ *Ibid.*, i. 29, no. 24. The year is clear from the Pope's itinerary.

⁶⁹ 'Habes in Sicilia Siracusanam et Argolicam bibliothecam.' *Hermes*, i. 388. Lo Parco, *Scolario-Saba*, in *Atti della R. Accademia di Archeologia di Napoli* (1910), new series, i. 241, seeks to identify the *Argolica bibliotheca* with that collected by Scolario-Saba at Bordonaro, near Messina; but see Heiberg, in *B. Z.*, xxii. 160.

⁶⁰ Giraldus Cambrensis, *Opera* (Rolls Series), viii. 65.

⁶¹ Cf. his description of the Ionian Sea in *Thomas Saga*, ii. 96. The marginal notes which he tells us (Rück, pp. 213, 266) he added to his excerpts from Pliny might have proved of interest in connection with his Sicilian sojourn, but an examination of the copies at Eton (MS. 134) and in the British Museum (Royal MS. 15. C, xiv) shows that very few of these survive. In one of these (Eton MS., bk. ii, c. 49; Royal MS., bk. ii, c. 51) he shows some spirit of observation when he says, with reference to eels, 'quod et ego expertus sum.'

⁶² The eulogy of King William by Aristippus may contain an implied comparison with Henry II: 'verum cum omnia dederis, regemne dabis Willelmum,' etc. Peter of Blois makes an explicit comparison of Henry II and William II: Migne, ccvii. 198.

⁶³ *Cartulary of St. Frideswide's*, i. 20, no. 15.

⁶⁴ 'Eodem anno [1151] perrexit abbas Wigodus Romam provocatus a Roberto priore Sancte Frideswide': *Annales Monastici* (Rolls Series), iv. 27; *M. G. H., Scriptores*, xxvii. 487.

⁶⁵ See the preface to his *De conubio Iacobi* in *Oxford Collectanea*, ii. 161.

⁶⁶ The preface to his *Speculum fidei* in the library of Corpus Christi College,

life, and the veil which he draws over the occasion of his presence in Sicily may well cover an outgrown interest in things at which religious men then looked askance.⁶⁷

If the interest of Aristippus centred in the philosophical writings of the Greeks, Eugene of Palermo was primarily a student of their mathematics. Of noble birth and nephew of the admiral Basil,⁶⁸ he had himself risen to the dignity of admiral, or more accurately emir,⁶⁹ in the royal administration, while his intellectual attainments won him also the title of 'the philosopher.' We are indebted to him for a Latin version, made from the Arabic, of a work which would otherwise have been lost, the *Optica* of Ptolemy, the translation having been preserved in a score of manuscripts and having been printed;⁷⁰ and it is not surprising to learn that he had at hand the Greek text of Euclid's *Data*, *Optica*, and *Catoptrica*, as well as the treatise of Proclus on mechanics, and was sufficiently familiar with them to give instruction in the difficult matter of the *Almagest*. All of this implies a knowl-

Cambridge, MS. 380 (James, *Catalogue*, p. 228), mentions a bull of Alexander III of 28 May 1170 (Jaffé-Löwenfeld, *Regesta*, no. 11806).

⁶⁷ See the reference to the *libellus ludicris plenius* in *Oxford Collectanea*, ii. 161; and cf. the remarks of the translator of the *Almagest*, preface, lines 47 ff.; and Heiberg, in *Hermes*, xlv. 210-212.

⁶⁸ *B. Z.*, xi. 449: Στρίχοι Εὐγενίου φιλοσόφου, ἀνεψιῶ Βασιλείου τοῦ ἀμειρά. *Ibid.*, p. 408: τὸν πανευγενέστατον ἀρχοντα κυρὸν Εὐγένιον. *Infra*, p. 175: Εὐγενῆς Εὐγένιος.

⁶⁹ On the significance of this title at the Sicilian court see Caspar, *Roger II*, p. 301; Chalandon, *Histoire de la domination normande*, ii. 637. The admiral Eugene who appears under Roger I in documents of 1093 and following (Caspar, *o. c.*, n. 7) must have been another person, but the translator was probably the father of Ἰωάννης, υἱὸς τοῦ ἐνδοξοτάτου ἀρχοντος κυρίου Εὐγενίου ἀμειράδος, who sells a garden in Palermo in 1201 (Cusa, *I diplomati greci ed arabi di Sicilia*, p. 89; cf. p. 23). Cf. Hartwig, in *Centralblatt für Bibliothekswesen*, iii. 173.

⁷⁰ Described by Boncompagni, "Intorno ad una traduzione latina dell' ottica di Tolomeo," in *Bullettino*, iv. 470-492, vi. 159-170; and edited by Govi, *L'ottica di Claudio Tolomeo da Eugenio ammiraglio di Sicilia ridotta in latino* (Turin, 1885). To the MSS. there enumerated should be added MS. 569 of the University of Cracow (Narducci, in *B. M.*, 1888, p. 98) and Suppl. grec 263 of the Bibliothèque Nationale; see also those indicated by Björnbo, in *Abhandlungen zur Geschichte der Mathematik*, xxvi. 124, 141 f., 145. On the loss of both the Greek original and the Arabic translation, see Steinschneider, in *Zeitschrift der deutschen morgenländischen Gesellschaft*, l. 216. There is no evidence for Amari's assumption (*Storia dei Musulmani*, iii. 660) that Eugene's translation was made under Roger, nor for Steinschneider's (*E. U.*, no. 37), that it belongs to 1154.

edge of languages, as well as no mean attainment in applied mathematics, and fully justifies the characterization of our preface, *virum tam grece quam arabice lingue peritissimum, latine quoque non ignarum*.⁷¹ His native tongue was evidently Greek, and he had sufficient mastery of it to produce fourteen hundred lines of verse which entitle him to an important place among the west-Greek writers of the Middle Ages.⁷² Of the twenty-four short poems which make up this collection, the greater number are epigrams on various virtues and vices. A few deal with religious subjects, such as the Crucifixion or the ascetic life. Three are addressed to a poet-priest of Brindisi; one celebrates the seclusion of a monastic cemetery, probably that of S. Salvatore of Messina; another describes a plant in the poet's garden at Palermo. Another writer of the time appears in Roger of Otranto, who addresses certain lines to him. One of Eugene's poems is an extravagant eulogy of King William (*πρὸς τὸν ἐνδοξότατον τροπαιοῦχον ῥῆγα Γουλιέλμον*); another, written in prison, seems to mark the close of his public career, from which he turns to solitude and books. We are tempted to seek here some connection with the imprisonment of Aristippus, in which case the King William of the poem would be William I, to whom for other reasons it seems better suited than to William II.⁷³ Indeed, while our prologue

⁷¹ This is also borne out by Eugene's own statement (*Optica*, ed. Govi, p. 3): 'Arabica in grecam aut latinam transferre volenti tanto difficilior est quanto maior diversitas inter illas tam in verbis et nominibus quam in litterali compositione reperitur.'

⁷² These poems are contained in a MS. of the Laurentian described by Bandini, *Catalogus Codicum MSS. Bibliothecae Mediceae Laurentianae*, i. 23-30; cf. Krumbacher, pp. 768 ff. They have been published by Sternbach, *B. Z.*, xi. 406-451 (emendations to the text, *ibid.*, xiv. 468-478, xvi. 454-459, xvii. 430-431). That the poet and the translator were the same person, which Sternbach considers uncertain, is rendered highly probable by our text, which shows that the mathematician was a Greek and lived in the period to which the poems belong. Cf. *B. Z.*, xix. 569, xx. 373-383.

⁷³ Krumbacher leaves the question open as among the three Williams but says, "Manches spricht für Wilhelm II." Sternbach (p. 409) decides for William II. Chronological considerations, as well as the weakness of the royal power, would seem to rule out William III, but it is not easy in the case of a eulogy of this kind to distinguish with much certainty between the other two kings of this name. On the whole, however, it does not seem that such verses, if, as seems likely, they were written at the beginning of a reign, could with much propriety or purpose have been addressed to the thirteen-year old William II, who remained under the tutelage of

places Eugene's mathematical studies in the time of William I, we cannot be certain that he was alive or, if alive, engaged in secular pursuits under William II.⁷⁴

Eugene the admiral is likewise associated with the transmission to the West of two curious bits of Oriental literature. One is the prophecy which became widely current in the later Middle Ages under the name of the Erythraean Sibyl, an oracular forecast of the doings of kings and emperors⁷⁵ which purports to have been

his mother for five years after his accession, while there is nothing which is inapplicable to William I. Sternbach indeed argues that lines 29-35 could not relate to William I as the successor of the first king of the Norman dynasty; but one king is enough to start a royal line (*βασιλικὴν τὴν ῥίξαν*), and the reference to the achievements of his fathers (*τὰ πατέρων βέλτιστα*) does not necessarily imply that they were all kings, for Roger I was glorious enough as duke to deserve inclusion in any such comparison. Indeed the passage has more point in the case of William I, as the son of the first Sicilian king: he will enlarge his authority even more than did his father who began as duke and ended as king (*μέγα τι λαβὼν κρείττον ἀντιπαρέχεις*). On resemblances between this poem and one of George of Gallipoli, addressed to Frederick II, see Horna, in *B. Z.*, xvi. 458; and cf. Sola, *ibid.*, xvii. 430.

⁷⁴ One of his poems, it is true (no. xiv, ed. Sternbach, p. 434), mentions an abbot Onofrius, who is probably to be identified with the archimandrite of San Salvatore di Messina who appears in documents of 1175-78 (Pirro, *Sicilia sacra*, edition of 1733, ii. 979, 980; Cusa, *I diplomati greci ed arabi*, p. 371; Garufi, *I documenti inediti dell' epoca normanna in Sicilia*, p. 168). We do not, however, know in what year he became archimandrite, for the current statement (e. g., Batiffol, in *Revue des questions historiques*, xlii. 555) that he entered upon this office in 1175 has no support beyond an erroneous assertion of Pirro (p. 979) that his predecessor Lucas died in that year. Pirro says that this date is proved from the records of the monastery, but his handling of the matter does not create confidence in his citation. He quotes an obituary notice in Latin which places the death of Lucas on Saturday the third of the kalends of March in the year 6688 of the Byzantine era (= A.D. 1180), and plausibly explains the obvious impossibility of this date by a misunderstanding of the Greek computation; but he does not notice that in both 1175, the date he proposes, and in 1180 the third of the kalends of March fell, not on Saturday, but on Thursday. In order to find this coincidence before the bull of October, 1175, which mentions Onofrius, we must go back to 1171 or 1165. Now an extract from a charter of William II refers to the grant of certain lands 'in Agro' made by him and his mother (her regency ended in 1171) to Onofrius, meaning doubtless a charter of 1168 for San Salvatore (Pirro, p. 979; on the date see Chalandon, *Domination normande*, ii. 336) in which the abbot is not named. If, accordingly, Onofrius was in office in 1168 and if we can trust the obituary for the day, his predecessor, who is not mentioned in the documents subsequent to 1149, must have died at least as early as 1165, so that a poem might have been addressed to Onofrius in the reign of William I.

⁷⁵ Published by Alexandre, *Oracula Sibyllina*, ii. 291-294 (Paris, 1856); and more fully by Holder-Egger, "Italienische Prophetieen des 13. Jahrhunderts," *Neues Archiv*, xv. 155-173, xxx. 323-335 (cf. xxxiii. 97, 101, 102).

translated from the Chaldean by Doxopater and kept in the treasury of the Emperor Manuel, whence it passed westward and was translated by 'Eugene, admiral of the kingdom of Sicily.'⁷⁶ By Doxopater is probably meant a contemporary of Eugene, Nilus Doxopatres, a Greek ecclesiastic who sojourned at Palermo and afterward appears as imperial *nomophylax* at Constantinople, and who wrote in 1143, at the instigation of Roger II, a history of the five patriarchates.⁷⁷ In its present form, however, the Sibylline text plainly belongs to the middle of the thirteenth century and shows the influence of the Joachite friars and the movements of Frederick II's reign,⁷⁸ so that it has been usual to dismiss the attribution to Doxopater and Eugene as an attempt to support the prophetic character of the oracle by a further bit of mystification.⁷⁹ The matter cannot, however, be so lightly set aside. While it is plain that the current version of this text belongs to Italy and the thirteenth century, it is equally clear that these oracles are of eastern origin. Both Greeks and Saracens had such Sibylline books,⁸⁰ and we find mention of their preservation in the imperial library under Leo the Armenian and again toward the close of the eleventh century.⁸¹ The connection with the West

⁷⁶ Neither of the editors gives a good text of this title. The MS. of St. Mark's, Cl. X, 158, reads as follows (Valentinelli, *Bibliotheca*, iv. 108): 'Extractum de libro vasilographia in imperiali scriptura quem Sybilla erythrea babilonica ad petitionem Graecorum regis Priami edidit, quem caldaeo sermone Doxopater peritissimus transtulit, tandem de aerario Manuelis imperatoris eductum Eugenius regni Siciliae admiratus de graeco transtulit in latinum.'

⁷⁷ See Krumbacher, p. 415; Caspar, *Roger II*, pp. 346-354; Harris, *Further Researches into the History of the Ferrar-Group* (London, 1900), pp. 52 ff.

⁷⁸ Holder-Egger, *o. c.*, xv. 150, dates it 1251-54, but Kampers, *Kaiserprophetien und Kaisersagen im Mittelalter* (Heigel and Grauert's *Historische Abhandlungen*, viii), p. 252, has shown reason for placing it a few years earlier.

⁷⁹ See the doubts expressed by Amari, *Storia dei Musulmani*, iii. 460, 660-662; Hartwig, in *Centralblatt für Bibliothekswesen*, iii. 174-176; Harris, *Further Researches*, p. 70; Steinschneider, *E. U.*, no. 37; Caspar, *Roger II*, p. 462, n. 4. The difficulty is not discussed by Holder-Egger or Kampers.

⁸⁰ Liutprand, *Legatio*, ed. Dümmler (Hanover, 1877), pp. 152-153: 'Habent Graeci et Saraceni libros quos *ὀφθαλμοί*, sive visiones, Danielis vocant, ego autem Sibyllanos; in quibus scriptum reperitur, quot annis imperator quisque vivat; quae sint futura, eo imperitante, tempora; pax, an simultas; secundae Saracenorum res, an adversae.'

⁸¹ Cont. Theophanis, i. 22, ed. Bonn, p. 36; Georgius Cedrenus, ed. Bonn, ii. 63. Cf. Alexandre, *o. c.*, ii. 287-311; Krumbacher, pp. 627 ff.

must be made at some point, and the statement that the text was brought from Manuel's treasury and was translated by Eugene is in entire accord with what we have already seen of the transmission of manuscripts and of the activity of the admiral as a translator. Even in its present form the text shows traces of Sicilian origin and of earlier elements,⁸² and a comparison of all the manuscripts and a genetic study of the whole may succeed in restoring the nucleus and explaining its development.⁸³

The other oriental work to which the name of the Sicilian admiral has become attached is the Sanskrit fable of Kalila and Dimna, first turned into Greek by Simeon Seth toward the close of the eleventh century under the title of *Στεφανίτης καὶ Ἰχνηλάτης* and widely popular in various western versions as a treatment of the relations of princes to their subjects.⁸⁴ In one group of manuscripts of the Greek version the translator is described in the following lines:⁸⁵

μυθική βίβλος ἐξ Ἰνδικῆς σοφίας,
προσενεχθεῖσα πρὸς Περσικὴν παιδείαν,
αἰνιγματωδῶς συντείνουσα τὰς πράξεις,
πρὸς βιωτικὴν συντείνουσα τὰς πράξεις·
ἡ μεταβληθεῖσα πρὸς γλῶσσαν τῶν Ἑλλήνων
ἐξ Ἀραβικοῦ καὶ βαρβαρώδους ὕψους
παρὰ τοῦ σοφοῦ, ἐνδόξου καὶ μεγάλου
τοῦ καὶ Ἀμηρᾶ, καὶ ῥιγὸς Σικελίας·
Καλαβρίας τε πρίγκιπος Ἰταλίας·
οὐσπερ εὐρικῶς, ὡς γνωστικούς τοῖς πᾶσι
τοῦτο δέδωκε πρὸς ἡμᾶς τὸ βιβλίον,
ὥσπερ δώρημα, διδασκαλίας πλεόν,
Εὐγενῆς Εὐγένιος, ὁ τῆς Πανόρμου.

⁸² See *Neues Archiv*, xv. 163, 167, 168, 171, 172, 173.

⁸³ So Kampers arrives at the same view from a study of the thirteenth-century version: 'Mutmasslich gab es eine eryth. Sibylle, die kein Ereignis über das Jahr 1200 hinaus behandelte.' *O. c.*, p. 253.

⁸⁴ See in general Krumbacher, pp. 895-897. The Greek text is edited by Puntoni, *Στεφανίτης καὶ Ἰχνηλάτης* (Florence, 1889), as the second volume of the *Pubblicazioni della Società Asiatica Italiana*.

⁸⁵ Bodleian, Cod. misc. gr. 272. See Coxe, *Catalogus Codicum MSS. Bibliothecae Bodleianae*, i, c. 814; Puntoni, *o. c.*, p. vi. Puntoni entirely ignores the problem raised by these lines.

Here, while Eugene is mentioned by name only as the donor of the book, there can be no doubt that he is the 'wise and glorious admiral' to whom the translation is attributed; but, although the attribution is thus seen to be contemporary, it can hardly be correct. The divergences from the other groups of manuscripts do not appear sufficient to establish an independent translation, and when the preface goes on to explain that the Greek version was made with the assistance of 'certain men well acquainted with the Arabic tongue,'⁸⁶ we may feel reasonably sure that these are the words of Simeon Seth rather than of the learned admiral, whose familiarity with Arabic is attested by his rendering of the *Optica* as well as by the preface printed below. It would seem probable that what we have is a revision of Seth's translation at Eugene's hands, no great achievement in itself, but interesting to us as a further illustration of the range of the admiral's labors and interests.

The popularity of the *Στεφανίτης καὶ Ἰχνηλάτης* in Byzantine circles in the twelfth century is also seen from the following verses, which are found at the close of the copy of the fable in MS. Gr. 2231 of the Bibliothèque Nationale:⁸⁷

Ceramei Georgii versus iambici super precedenti libro

Τοῦ κεραμέου γεωργίου στίχοι ἐπὶ τῇδε⁸⁸ τῇ βίβλῳ

Εἴπης *λιλίν⁸⁹ ἀν τὴν παρούσαν πυκτίδα,

*δυνυνία⁹⁰ παίζουσιν ἐκ θυμηδίας·

περσωνυμικὴν⁹⁰ ἀπιδὼν κλῆσιν φίλος,

καὶ τὴν ἐν αὐτῇ τῶν λόγων κοινὴν φράσιν·

5 δι' ⁹¹ ἧς πύθηκες καὶ λεόντων τὰ κράτη·

τῶν ἐλεφάντων καὶ κοράκων τὰ γένη

⁸⁶ Puntoni, *o. c.*, p. vii: ἐπὶ τούτων καὶ τισιν ἀνδράσι χρησάμενοι, ἀντιλαμβανομένοις τῇ ἡμῶν προθυμίᾳ, εὐ εἰδότες τῆς τῶν ἀράβων γλώσσης.

⁸⁷ On the MS. see *Catalogus Codicum MSS. Bibliothecae Regiae*, ii. 466; and Omont, *Inventaire sommaire des MSS. grecs*, ii. 218. Rysenko's edition, published at Odessa in 1909 (cf. *B. Z.*, xviii. 621, xix. 569), I have not seen.

⁸⁸ Iota subscript omitted throughout in MS.

⁸⁹ In these unintelligible words there may lurk a corruption of Kalila and Dimna.

⁹⁰ Marginal gloss τὴν ἀρραβικὴν.

⁹¹ Marginal gloss γρά[φεται] ἐν ᾧ.

- ταύρων χελωνῶν βατράχων καὶ δορκάδων
νηττῶν μυῶν τε καὶ περιστερῶν ἄμα
κιττῶν τε κύκνων ἰχθύων καὶ καρκίνων
10 καὶ τῶν σκολιῶν ἑρπετῶν ἡ κακία,
συντυγχάνουσιν οἷσπερ οὐκέστι λόγος·
εἰ δ' οὖν λογικὰ τὰ πρόσωπά μοι κρίνης,
καὶ τὴν ἐν αὐτοῖς σύνεσιν καταμάθης,
εὖρης ἀπάντων σωφρονέστατον βίον·
15 φεύγων ἀφορμὰς τῶν κακίστων κολάκων·
νοῶν πονηροὺς ἐκτρέπων σκαιοτρόπους·
φίλους ἀφίλους συγκρίνων διακρίνων·
καὶ πάντα πράττων εὐμαρῶς καὶ κοσμίως·
ὥς γοῦν κάλυκα περιφρουροῦσαν ῥόδον,
20 ὥς δστρεον μάργαρον ἐμφέρον μέγαν.
βαλάντιον σκύτινον ὥς χρυσοῦ γέμον,
κιβώτιον ξύλινον ὥς πλήρες λίθων,
ἰάσπεών τε λυχνιτῶν ἐξανθράκων,
ἔχων τὸ παρὸν κλεινὴ Παλαιολόγε,
25 ἀγλαοφανὲς παγκλεέστατε κλάδε,
τοῦ τρισεγγίστου καὶ βριαροῦ δεσπότης,
'Ανδρόνικε κάλλιστε φυτὸν χαρίτων,
βιβλίον εὖ ἔγκυπτε τοῖς ἐγκειμένοις·
καὶ συνετίζου καὶ φρονήσει σεμνύνου
30 καὶ πάντα πράττε καθαπερεὶ συμφέρον,
ὥς ὑποδρηστήρ τῶν μεγάλων ἀνάκτων,
δόξης ταχινώτατος ἐν τοῖς πρακτέοις·
ὥς τοῖς προσεγγίζουσί σοι κατὰ⁹² γένος,
φανεῖς ἀξιάγαστος ἐν πᾶσι λόγοις·
35 ἡμῖν δ' ἀλιτροῖς οἰκέταις σοῖς ἀθλοῖς,
μέγα παρηγόρημα καὶ θυμηδία.

The Andronicus to whom these lines are addressed cannot be the fifteenth-century humanist Andronicus Callistus,⁹³ for the MS. is of the thirteenth century. He is, moreover, a man of royal descent who holds a high place in the service of the emperor, and should doubtless be identified with the Andronicus Palaeologus who led a division of the imperial army in the war with the Nor-

⁹² MS. *προσεγγίζουσι σοι κατα*.

⁹³ Besides, the humanist was not a Palaeologus. See Legrand, *Bibliographie hellénique*, i, pp. 1-1vii. *κάλλιστε* in our text is thus an adjective, not a proper name.

mans in 1185⁹⁴ and is addressed in one of the letters of Glycas.⁹⁵ Georgius Cerameus has a couple of lines given him in Fabricius on the basis of the mention of these verses in the Paris catalogue,⁹⁶ but nothing further is known of him unless he is the same as the distinguished preacher of the middle of the twelfth century, whom recent investigation makes archbishop of Rossano.⁹⁷ His sermons bear the name of Cerameus and most commonly of Theophanes Cerameus, but five or six other Christian names, among them George, are given in different manuscripts. Nothing can be definitely affirmed until the problem of the authorship of the sermons is straightened out, but if it should appear that Georgius Cerameus was a Calabrian archbishop, or a western Greek of any sort, another connection will thereby be established between Constantinople and the West in the twelfth century.

The mention of Euclid's *Data*, *Optica*, and *Catoptrica* helps to connect the Latin translations of these works likewise with the Sicilian school, if not with the translator of the *Almagest* himself. These treatises formed part of a group of texts, corresponding roughly to the 'intermediate books' of the Saracens, which formed the basis of mathematical studies in the stage between the *Elements* of Euclid and the *Almagest*.⁹⁸ Besides an unidentified version of the *Data* made from the Arabic by Gerard of Cremona,⁹⁹

⁹⁴ Nicetas Acominatus [Choniata], ed. Bonn, p. 412; Eustathius, ed. Bonn, p. 430.

⁹⁵ Migne, *Patrologia Graeca*, clviii, coll. xxxv, 933; Krumbacher, in Munich *Sitzungsberichte*, 1894, pp. 422, 425. On the claim of the Palaeologus family to imperial descent, see Otto of Freising, *Gesta Frederici*, ed. Waitz, p. 116; Hase, in *Notices et extraits des MSS.*, ix, 2, pp. 153 ff.

⁹⁶ *Bibliotheca Graeca* (1790-1809), xi. 327, xii. 43. He is overlooked by Krumbacher.

⁹⁷ Lancia di Brolo, *Storia della chiesa in Sicilia* (Palermo, 1884), ii. 459-492; Krumbacher, pp. 172-174; Caspar, *Roger II*, pp. 459 ff.

⁹⁸ See Steinschneider, in *Z. M. Ph.*, x. 456-498, xxxi. 100-102; Menge, *Euclidis Data* (Teubner, 1896), p. liv; Heiberg, *Euclidis Optica* (Teubner, 1895), pp. xxxii, 1; Cantor, *Vorlesungen*, i. 447, 705. In the fourteenth century Theodore Metochita tells us, in a passage cited by Menge and by Heiberg, that he found he could not understand the *Almagest* without the same preliminary course in the *Data*, *Optica*, and *Catoptrica* which was taken by our Sicilian translator.

⁹⁹ Wüstenfeld, p. 62; Steinschneider, *H. U.*, p. 510; Hultsch, in Pauly-Wissowa, xi. 1043.

the extant translations of the *Data*, *Optica*, and *Catoptrica* can be traced back to the beginning of the thirteenth century, and were probably made in the twelfth.¹⁰⁰ They were evidently made directly from the Greek, indeed the *Catoptrica* does not seem to have been known to the Arabs,¹⁰¹ and the discovery that Greek texts of the three works existed in Sicily in the twelfth century points clearly to this region as the source of the Latin *interpretatio*.¹⁰² The translator of the *Almagest* does not make quite clear the nature of his preliminary labors in the works of Euclid, but the more natural interpretation would seem to be that he not only studied them but tried his hand (*prelusi*) at turning them into Latin.

The same argument applies to the other treatise mentioned with the works of Euclid, the *De motu* of Proclus, *Στοιχειώσις φυσικὴ ἢ περὶ κινήσεως*, generally known in Latin as the *Elementatio philosophica* or *Elementatio physica*. An incomplete Latin version is extant in MS. F. iv. 31 at Basel,¹⁰³ MS. Q. 290 of the Stadtbibliothek at Erfurt,¹⁰⁴ and MS. Lat. 6287 of the Bibliothèque Nationale;¹⁰⁵ the Basel manuscript is clearly of the fourteenth century, while the Erfurt manuscript is of northern origin and not later than ca. 1400, so that the translation which

¹⁰⁰ Heiberg, *Optica*, pp. xxxii, li; Steinschneider, *H. U.*, p. 512; Björnbo, in *Archiv für die Geschichte der Naturwissenschaften*, i. 390.

¹⁰¹ Heiberg, *Studien über Euklid* (Leipzig, 1882), p. 152.

¹⁰² The existence of the Greek text of the *Optica* in Sicily was already known from the prologue of Aristippus published by Rose (*Hermes*, i. 388, cf. p. 381), and the conclusion that the Latin version was of Sicilian origin was drawn therefrom by Heiberg, *Optica*, p. xxxii; *Hermes*, xlv. 209. John Dee described one of the MSS. in his library as containing 'Euclidis Elementa Geometrica, Optica et Catoptrica, ex Arabico translata per Adellardum' (*Diary*, ed. Halliwell, Camden Society, p. 67; M. R. James, *List of MSS. formerly owned by Dr. John Dee*, Oxford, 1921, p. 16, no. 13); but there is no other reason for attributing the translation of the *Optica* and *Catoptrica* to Adelard of Bath, and the translator's name is not found with the versions of these treatises in MS. 251 of Corpus Christi College, which belonged to Dee (James, p. 30, no. 151). See ante, Chapter II, n. 66.

¹⁰³ The Basel MS. (ff. 82 v-84) which I found in 1922, has been collated by the kindness of the Oberbibliothekar, Professor G. Binz.

¹⁰⁴ Ff. 83 v-86. Cf. Schum, *Verzeichniss der Amplonianischen Handschriften-Sammlung*, p. 530.

¹⁰⁵ Ff. 21-22 v, of the fifteenth century. The three MSS. are based on the same Greek text, which is defective at the close of book i, and breaks off with ii, 4.

they contain must be anterior to the Renaissance. That this was made directly from the Greek is evident from the transfer of such words as *omogenes* and from the lettering of the demonstrations, where *abgdez* represent *αβγδεζ*, as well as from the closeness with which the Greek text is followed. The verbal literalness characteristic of mediaeval renderings from the Greek may be seen from the following specimen:

INCIPIT ELEMENTACIO PHILOSOPHICA¹⁰⁶ PROCLI

Continua sunt quorum termini unum. Contingentia sunt quorum termini simul. Deinceps sunt quorum nihil medium omogenes, id est congruatum. Primum est tempus mocionis, quod nec plus nec minus mocione. Primus est locus, qui nec maior contento corpore nec minor. Quiescens est prius sicut posterius in eodem loco existens et totum et partes.

(1) *Duo individua non contingunt se invicem.* Si enim possibile, sint duo individua *ab*, contingent¹⁰⁷ se invicem. Contingentia vero erant quorum termini in eodem; duo ergo partium¹⁰⁸ termini erunt, hoc autem impossibile. Non ergo erant *a* et *b*.

(2) *Duo individua continuum nihil faciunt.* Si enim possibile, sint duo individua *a* et *b* et faciant¹⁰⁹ continuum quod est ex ambobus. Sed omnia continua contingunt se prius adinvicem, ergo se contingunt *ab* individua existentia, quod est impossibile. Aliter: si est continuum ex *ab* individuis, vel totum totum contingit, vel totum partem, vel partes partem. Sed si totum partem vel partes partem, non erunt individua *ab*. Si vero totum totum contingit, non erunt individua sed supponetur tantum. Si ergo non erit *a* continuum, nec vero *b* et *a* erunt continuum totum totum contingens.¹¹⁰

¹⁰⁶ The MSS. have 'ph'ica' here, but the Erfurt MS. has 'philosophica' in the *explicit*.

¹⁰⁷ Erfurt: *contingunt*.

¹⁰⁸ Based doubtless upon a text which had *μέρων* instead of *ἀμερῶν*.

¹⁰⁹ Paris: *faciunt*.

¹¹⁰ As the printed text of the *De motu* (Paris, 1542) is not well known, I give for convenience of comparison the opening portion of the treatise from the text of Harleian MS. 5685 of the British Museum (saec. xii): (f. 133) *Συνεχὴ ἔστιν ὡν τὰ πέρατα ἐν· ἀπτόμενά ἐστιν ὡν τὰ πέρατα ἅμα· ἐφεξῆς ἔστιν ὡν μηδὲν μεταξὺ ὁμογενές. πρῶτός ἐστι χρόνος κινήσεως, ὁ μῆτε πλείων μῆτε ἐλάττων τῆς κινήσεως. πρῶτός ἐστι τόπος, ὁ μῆτε μείζων τοῦ περιεχομένου σώματος μῆτε ἐλάττων. ἡρεμοῦν ἐστι τὸ πρότερον καὶ ὕστερον ἐν τῷ αὐτῷ τόπῳ ὅν καὶ αὐτὸ καὶ τὰ μέρη.*

(1) *Δύο ἀμερῇ οὐχ ἄφεται ἀλλήλων.* εἰ γὰρ δυνατόν, δύο ἀμερῇ τὰ αὐτὰ ἀπτείσωσαν ἀλλήλων· ἀπτόμενα δὲ ἦν ὡν τὰ πέρατα ἐν τῷ αὐτῷ, τῶν δύο ἅρα ἀμερῶν πέρατα ἔσται. οὐκ ἄρα ἦν ἀμερῇ τὰ αὐτὰ.

(2) *Δύο ἀμερῇ συνεχὲς οὐδὲν ποιήσει.* εἰ γὰρ δυνατόν, ἔστω δύο ἀμερῇ τὰ αὐτὰ καὶ ποιείτω συνεχὲς τὸ ἐξ ἀμφοῖν. ἀλλὰ πάντα τὰ συνεχῇ ἄπτεται πρότερον, τὰ ἅρα αὐτὰ ἄπτεται ἀλλήλων ἀμερῇ δυνατὰ, ὅπερ ἀδύνατον. [ἄλλως — marginal] εἰ ἔστι συνεχὲς ἐκ

If it be objected that a work of this sort could scarcely be translated otherwise, the freer style of the Renaissance may be seen in the version of Spiritus Martinus Cuneas, printed at Paris in 1542:¹¹¹

Continua sunt quorum termini sunt unum. Contigua sunt quorum termini sunt simul. Deinceps sunt inter que nihil est eiusdem generis. Primum motus tempus est quod neque longius est eo neque brevius. Primus locus est qui neque maior neque minor est contento corpore. Quiescens est quod primo et postremo tam ipsum quam partes in eodem loco est.

THEOREMATA

I. Duo indivisibilia non tangunt se invicem. Nam (si fieri potest) duo indivisibilia *ab* tangant se invicem, at cum contigua sunt quorum termini sunt in eodem, duo indivisibilia terminos habebunt. Non igitur indivisibilia *ab*.

Not only is the mediaeval rendering closely literal, but it shows the turns of expression characteristic of the translator of the *Almagest*, such as *quoniam* for *ὅτι*,¹¹² *utique* for *ἄν*, *quidem* . . . *vero* for *μέν* . . . *δέ*,¹¹³ and notably the use of *id quod* to represent the article before an attributive phrase.¹¹⁴ These resemblances, when taken in connection with the mention of the *De motu* in the preface to the *Almagest*, make it probable that both translations are the work of the same scholar.

Another work of Greek mathematics which is known to have been in Sicily in the time of William I is the *Pneumatica* of Hero of Alexandria, which is mentioned by Aristippus in the introduction to his translation of the *Phaedo*.¹¹⁵ All existing manuscripts are

τῶν αὐ ἀμερῶν, ἡ δλον ἀπτεται (f. 133v) τὸ α τοῦ ὕ, ἡ δλον μέρους ἡ μέρη μέρους. ἀλλ' εἰ μὲν δλον μέρους ἡ μέρη μέρους, οὐκ ἔσται ἀμερῇ τὰ αὐ. εἰ δὲ δλον δλου ἀπτοιτο, οὐκ ἔσται συνεχές ἀλλ' ἐφαρμόσει μόνον. εἰ οὖν οὐκ ἦν τὸ α συνεχές, οὐδὲ τὸ ὕ μετὰ τοῦ α ἔσται συνεχές δλον δλου ἀπτόμενον.

¹¹¹ Procli . . . *De Motu Libelli Duo* . . . *Spiritu Martino Cuneate interprete*. I have used the copy in the British Museum.

¹¹² Heiberg, in *Hermes*, xlv. 59.

¹¹³ Supra, p. 163. These are also the regular equivalents in Boethius, and may have been taken from him by subsequent translators. See McKinlay, *Harvard Studies*, xviii. 124-128.

¹¹⁴ E. g. (ii, 4), τῶν ἐπ' εὐθέλας τῆς κινήσεων = earum que in directo mocionum.

¹¹⁵ 'Habes Eronis philosophi mechanica pre manibus, qui tam subtiliter de inani disputat quanta eius virtus quantaque per ipsum delationis celeritas': *Hermes*, i. 388. This work is not the lost *Mechanica*, preserved only in an Arabic translation

of later date, and the known Latin versions, three in number, are of the fifteenth and sixteenth centuries, so that it has been supposed that the Latin translation which is inferred from the language of Aristippus disappeared with the manuscript on which it was based.¹¹⁶ There exists, however, in the Bibliothèque Nationale¹¹⁷ a translation of the abbreviated text of the *Pneumatica*¹¹⁸ which not only differs from the Renaissance versions described by Schmidt,¹¹⁹ but has the close literalness of a mediaeval rendering. Its identity with the lost Sicilian translation can only be conjectured, but there would be nothing strange in the survival of the mediaeval version in the period of the humanists, who did not disdain such helps in making their own translations. The Paris text begins as follows:

SPIRITALIUM HERONIS ALEXANDRINI LIBER PRIMUS

Cum spiritale negotium studio dignatum sit a veteribus tum philosophis tum mechanicis, illis quidem per rationes vim eius explicantibus, hiis vero et per ipsos sensibiles effectus, necessarium esse ducimus et ipsi quae ab antiquis tradita sunt in ordinem redigere et quae nos quoque adinvenimus addere; sic enim eos qui post haec in mathematicis versari volunt iuvare continget. Consequens¹²⁰ autem esse rati aqueorum horoscopiorum habitudini, quae nobis in quatuor libris descripta est, hanc tractationem esse continuam, scribemus et de ea, ut praedictum est. Per complicationem enim aeris et ignis et aquae et terrae ac dum tria elementa aut etiam quatuor complicantur, variae affectiones committuntur, quarum aliae usus vitae huic necessarios praestant, aliae stupendum aliquod miraculum ostendunt.

and containing nothing concerning the vacuum, but the *Pneumatica*, which begins with a discussion of this subject. See Rose, *Hermes*, i. 380; Schmidt, *Heronis Opera* (Teubner, 1899), i, suppl., p. 53.

¹¹⁶ Schmidt, *o. c.*, pp. 52, 53.

¹¹⁷ MS. Lat. 7226 B, ff. 1-43; written on paper in a French hand of the early sixteenth century, with occasional corrections in a contemporary hand and free inter-linear and marginal corrections in a somewhat later humanistic hand which seeks to improve the rendering and often cites the Greek words of the original. This MS. was overlooked by Schmidt, doubtless because it is omitted from the body of the catalogue.

¹¹⁸ On which see Schmidt, *o. c.*, pp. 14-23.

¹¹⁹ *Ibid.*, pp. 42, 43, 49-53.

¹²⁰ The corrections, which appear with many erasures and alternative renderings, are not of sufficient importance to be reproduced in detail, but the translation of this sentence may serve as a specimen: 'Itaque cum veris certisque consecutionibus colligi (or confici) posse arbitremur, hanc commentationem cum horoscopiorum quae ex aqua comparantur ratione, quae iam a nobis in quatuor libris descripta est, coniunctam esse atque continuam, scribimus, etc.'

Caeterum ante ea quae dicenda sunt primum de vacuo tractandum est. Alii enim aiunt universaliter (f. r v) nullum esse vacuum, alii confertum quidem secundum naturam nullum esse vacuum sed sparsum per parvas particulas in aere et humore et igni et caeteris corporibus, quos potissimum sequi convenit; ex iis enim quae apparent ac sub sensum cadunt in sequentibus ostenditur id contingere. Quamquam vascula quae vulgus putat esse inania non sunt ut existimant inania sed plena aere, qui, ut iis placet qui in commentariis de natura versati sunt, pusillis ac levibus corpusculis constat quae nobis ut plurimum immanifesta sunt. Si igitur in vasculum quod videtur esse vacuum infundat quis aquam, quantum aquae in vasculum inciderit, tantundem aeris excedet. Poterit autem quis mente complecti id quod dicitur experientia tali.

There was, it is true, a mediaeval version of Hero made by William of Moerbeke which has not yet been identified, but the existence of an earlier rendering has been shown by Birkenmajer,¹²¹ since a set of Latin extracts is cited by Richard of Fournival ca. 1250. It is not clear whether this is the version here printed or the extracts based on the longer text of Hero which Birkenmajer has found at Cracow.

One of the most obscure and one of the most important questions connected with the Greek scholars of southern Italy and Sicily is the extent of their acquaintance with Aristotle and their relation to the Latin translations of his works. It tempts our curiosity to know that the *Posterior Analytics* was in Sicily in the time of Aristippus and that the first northern author to cite it was John of Salisbury, who was a frequent visitor to the Norman kingdom; that Aristippus himself translated the fourth book of the *Meteorologica*; and that the Sicilian translator of the *Almagest* was acquainted, at least indirectly, with the Greek text of the *De caelo*. Some of these problems we shall examine more specially in another connection.¹²²

Another subject which might reward further inquiry is the Biblical manuscripts of Sicilian origin. An important group of New Testament codices, the Ferrar group, has been traced to the scribes of King Roger's court,¹²³ but the manuscripts of the Septuagint and the Arabic translations have still to be examined with

¹²¹ *Vermischte Untersuchungen* (Beiträge, xx, no. 5), pp. 22-30.

¹²² *Infra*, Chapters XI, XVIII.

¹²³ See especially Harris, *Further Researches into the History of the Ferrar-group* (London, 1900).

reference to possible Sicilian connections. Many-tongued Sicily would be a natural centre for polyglot copies, and it is hard to conceive of any other country as the source of such a manuscript as Harleian 5786 of the British Museum,¹²⁴ written before 1153¹²⁵ and containing the Psalter in the Vulgate and Septuagint texts and an Arabic version.

Further investigation may very likely reveal still other points of contact between Sicily and the East and other lines of influence on the intellectual life of northern Europe. Thus while Adelard of Bath doubtless got his familiarity with Saracen learning in the course of the extensive travels which took him to Syria and perhaps to Spain, it should be noted that he studied at Salerno and in Magna Graecia, and dedicated his *De eodem et diverso* to William, bishop of Syracuse, whom he credits with much mathematical knowledge.¹²⁶ John of Salisbury, who made more than one journey into southern Italy, studied with a *greecus interpres*, a native of Santa Severina, who occupied himself with Aristotle;¹²⁷ and it was probably in this region that the English humanist gained his acquaintance with the *Posterior Analytics*. John's pupil, Peter of Blois, who, like his master, advocated the cause of the classics against the rising tide of logical studies, had likewise been in Sicily.¹²⁸ Another friend of John of Salisbury, Burgundio the Pisan, the leading north-Italian Greek scholar, also made a visit to Sicily.¹²⁹ Returning in 1171 from the last of his three missions to Constantinople as an envoy of Pisa, he tells us that he stopped at Messina, Naples, and Gaeta, working all the time assiduously

¹²⁴ A facsimile of one page is published by the *Palaeographical Society*, i, 2, plate 132. I am indebted to Professor E. K. Rand for calling my attention to this MS.

¹²⁵ The date appears from the following entry on the last folio: '[a]nn[o] incarnationis dominice. M. C. Liij. Ind[] m[ensis] ianuarii die octavo die mercurii.' There is some error here, as 8 January 1153 fell on Thursday.

¹²⁶ *Supra*, Chapter II.

¹²⁷ Schaarschmidt, *Johannes Saresberiensis* (Leipzig, 1862), pp. 120-122; Rose, in *Hermes*, i. 379-381; Poole, in *Dictionary of National Biography*, xxix. 444; Webb, *Ioannis Saresberiensis Policraticus*, i, pp. xxv-xxvii, ii. 259, note.

¹²⁸ *Epistolae*, nos. 10, 46, 66, 72, 90, 93, 116, 131, in Migne, ccvii. 27, 133, 195, 221, 281, 291, 345, 386, 397.

¹²⁹ On whom see Chapter X. John of Salisbury mentions him in the *Metalogicus*, 4, 7 (*Opera*, ed. Giles, v. 163).

at his translation of Chrysostom's *Homilies* on the gospel of John.¹³⁰

As an illustration of the amount of communication which went on in the twelfth century between Sicily and the North, and thus of the possibilities of intellectual intercourse, let us examine further the relations between Sicily and the Anglo-Norman lands.¹³¹ The southern branches of Norman families did not lose all connection with the parent stem when conquest and colonization ceased: readers of Ordericus Vitalis will recall the interminable comings and goings of the members of the house of Grentemaisnil in the eleventh century, and as late as 1130 one of this family gave up his fiefs in the south in order to return to his relatives in Normandy.¹³² The northern Normans showed pride in the achievements of their Italian kinsmen,¹³³ and it is characteristic that the splendor of Rouen and the glory of King Roger form the joint theme of a Latin poem.¹³⁴ No list can be attempted of the Norman and English students at Salerno¹³⁵ or of the pilgrims

¹³⁰ 'Negociis vero vice civitatis pactis, licenciam redeundi ab imperatore accipiens, Messanam veniens ibique moram faciens, manibus meis scribens librum inibi trasferre incepti. Et sic per tantam viam Neapoli et Gaete et ubicumque moram faciebam vacationem michi extorquens, iugiter transferebam et contra spem per duos continuos annos, Deo actore, totum librum de verbo ad verbum de greco in latinum transferens integre consummavi': Vatican, MS. Ottoboni Lat. 227, f. 1. Also at Merton College, MS. 30 (dated 1174); Bibliothèque Nationale, MS. Lat. 1778, ff. 74-111; Arras, MS. 229; Berlin, Cod. Elect. 332 (cf. Rose, *Verzeichnis*, ii. 122-124). Printed in part from Mabillon's copy in Martène and Durand, *Veterum scriptorum amplissima collectio*, i. 829; other extracts from this preface supra, Chapter VIII, n. 36. On the Pisan mission, see Chalandon, *Les Comnènes*, ii. 575.

¹³¹ These two paragraphs have been revised from my articles on "England and Sicily in the Twelfth Century," *E. H. R.*, xxvi. 435-438 (1911). The general subject of Englishmen in Italy in this period is being investigated by one of my students, Dr. Paul B. Schaeffer.

¹³² Alexander Telese, i, cc. 17, 20-22, in Del Re, *Cronisti e scrittori sincroni napoletani* (Naples, 1845), i. 97, 99 f.; Ordericus, iii. 455. Note also the de Lucys in Sicily: Garufi, in *Archivio storico per la Sicilia orientale*, x. 160-180 (1913).

¹³³ Ailred of Rievaulx, in *Chronicles of Stephen*, iii. 186; *Miracula S. Michaelis*, in *Mémoires des Antiquaires de Normandie*, xxix. 864; Ordericus Vitalis, v. 58; Robert of Torigni, i. 242; *Actus pontificum Cenomannis*, ed. Busson and Ledru, p. 417.

¹³⁴ Printed by Richard, *Notice sur l'ancienne bibliothèque des echevins de Rouen* (Rouen, 1845), p. 37; Haskins, *Norman Institutions*, p. 144.

¹³⁵ Adelard of Bath is an early instance. There are many names under 'Anglicus' in the index to the *Necrologio di S. Matteo di Salerno* (ed. Garufi, Rome, 1922). The

and crusaders who went or returned by way of Bari¹³⁶ or Messina, nor can we hope to recover many traces of the commercial intercourse which must have existed. It is, however, significant that we hear of a merchant of London at Salerno and a merchant of Brindisi at the tomb of Becket,¹³⁷ and that the money of Rouen was in common use in the region of Aversa at least as late as 1135.¹³⁸ The great monasteries of St. Eufemia, Venosa, and Mileto had been founded by monks from St. Evroult, and the *cantus Uticensis* was still sung in them in the days of Ordericus,¹³⁹ who doubtless derived his full knowledge of south-Italian affairs from the intercourse maintained with these daughter-abbeys.¹⁴⁰ The chroniclers of Mont-St.-Michel and Bec were likewise well informed concerning events in the South,¹⁴¹ as were English historians of the close of the century;¹⁴² and if St. Michael and St. Nicholas¹⁴³ were popular in Normandy and England, St. Thomas of Canterbury was promptly added to the Norman saints who had kept a place for themselves in the south-Italian calendars.¹⁴⁴ John, abbot of Telese, had studied at

supposed dedication of the 'Schola Salerni' to Robert Curthose in 1101 must, however, be given up as a result of the investigations of Sudhoff, ending in *Archiv für die Geschichte der Medizin*, xii. 149-180 (1920). On Robert's sojourn in the South, see C. W. David, *Robert Curthose* (Cambridge, 1920).

¹³⁶ *Catalogus codicum hagiog. Paris.*, ii. 422 f.

¹³⁷ Wright, *Anglo-Latin Satirical Poets*, i. 37 ff.; *Materials for the History of Thomas Becket*, i. 452. There was a William Apulus at Norwich, *Life of St. William of Norwich*, p. 31.

¹³⁸ Alexander Telese, iii. c. 8, iv. c. 1 (Del Re, pp. 133, 146); and, for a specimen coin, Sambon, in *Gazette numismatique française*, iii. 138.

¹³⁹ ii. 89-91.

¹⁴⁰ See Delisle's introduction, v, p. xxxvii; cf. ii. 110. Ordericus (ii. 88) also used Geoffrey Malaterra.

¹⁴¹ Robert of Torigny, *passim*; *S. Nicolai in Normannia et in Apulia miracula*, by a monk of Bec, in *Cat. codd. hagiog. Paris.*, ii. 405-432.

¹⁴² Roger of Hoveden, i. 223; William of Newburgh, ii. 428-431; Ralph de Diceto, ii. 37 f.

¹⁴³ See note 141.

¹⁴⁴ For St. Thomas see *Materials*, i. 165, and the mention of churches dedicated to him in 1179 in De Grossis, *Catania sacra*, p. 98 f.; and Ughelli-Coleti, *Italia sacra*, vii. 501. For the older Norman saints, see the calendar of La Trinità di Venosa, now MS. 334 of the library of Monte Cassino, printed in Gattola, *Accessiones ad historiam Cassinensem*, ii. 843 ff.; and the so-called *Missale Gallicum* of the cathedral of Palermo (MS. 544), where the entry, in a later hand, of 'Jorlandi episcopi' opposite the

Bec;¹⁴⁵ while Albold of St. Edmund's, Robert of St. Frideswide's, and Warin of St. Albans were heads of English religious houses who had spent more or less time in southern Italy.¹⁴⁶ Many men of Norman birth received ecclesiastical preferment in Sicily, not only in the period of reorganization following the conquest, but in the time of Roger II and his immediate successors. William, bishop of Syracuse, the friend of Adelard of Bath, would seem to have been a Norman,¹⁴⁷ as likewise, a generation later, the archbishop of Palermo, Roger Fescan.¹⁴⁸ We find John of Lincoln and Herbert of Braose among the canons of Girgenti in 1127,¹⁴⁹ and Richard of Hereford and William of Caen (?) among those of Palermo in 1158.¹⁵⁰ Under William the Good four prelates of English origin are known: Richard Palmer, bishop of Syracuse and archbishop of Messina, Walter, archbishop of Palermo, and his brother Bartholomew, bishop of Girgenti,¹⁵¹ and Herbert of Middlesex, archbishop of Compsa.¹⁵² Doubtless, if our sources of information were fuller, other names could be added to this list, for the presence of Englishmen and Normans in the South was due quite as much to royal policy as to other causes.

'Sancti Laudi Episcopi' of the twelfth-century original (f. 251 v) shows how the St. Lô of the Norman calendar has given way to St. Gerland of Girgenti. The use of Rouen was employed in Sicily down to the sixteenth century. See La Mantia, *Ordines judiciorum Dei nel missale gallicano del XII secolo nella cattedrale di Palermo* (Palermo-Turin, 1892), p. 4; and the MSS. of Norman origin in Madrid described by Delisle in *Journal des savants*, 1908, pp. 43-49; and by Karl Young, in *Publications of the Modern Language Association of America*, xxiv. 325. On the importation of canonistic material from the North, see E. Besta, "Di una collezione canonistica palermitana," in *Circolo giuridico*, xl (1909); and H. Niese, *Die Gesetzgebung der normannischen Dynastie im Regnum Siciliae* (Halle, 1910), pp. 46-49, 73-76, 80, 93 f., 113 f., 185 f. ¹⁴⁵ Eadmer, p. 96.

¹⁴⁶ *Cat. codd. hagiog. Paris.*, ii. 422; *Gesta abbatum S. Albani*, i. 194 f.; supra, notes 50-67.

¹⁴⁷ Pirro, *Sicilia sacra* (ed. 1733), i. 620; supra, Chapter II, n. 8.

¹⁴⁸ This seems to me likely, not so much because of Pirro's statement (i. 86-88) but because the name Fescan (Cusa, *I diplomi greci ed arabi di Sicilia*, i. 17, 27) is the contemporary form for Fécamp.

¹⁴⁹ Palermo, Biblioteca comunale, MS. Qq. H. 6, f. 7, printed incorrectly by Gregorio, *Considerazioni sopra la storia di Sicilia*, bk. i. ch. 3, n. 16. Their bishop Walter was also 'francigena' (*Archivio storico siciliano*, xxviii. 148).

¹⁵⁰ *Documenti per la storia di Sicilia*, first series, i. 20.

¹⁵¹ On these three consult the index to Chalandon.

¹⁵² Ralph of Diceto, ii. 37; Ughelli, vi. 811.

While King Roger's court was cosmopolitan, he showed a preference for the French and did not forget the ties which bound him to those of Norman blood.¹⁵³ Robert of Selby, chancellor during the greater part of the reign and in war as in peace a trusted agent of the king, was an Englishman by birth and dispensed a lavish hospitality to his fellow countrymen. St. William of York, possibly a kinsman of the king, visited Robert at Palermo when exiled from his see, and John of Salisbury drank the chancellor's heavy wines to his undoing.¹⁵⁴ Among the Sicilian prelates whose assiduity at the court scandalized the archbishop of Canterbury,¹⁵⁵ those of English origin were preëminent. Richard Palmer, *vir litteratissimus et eloquens*,¹⁵⁶ occupied a leading position in the *curia* in the later years of William the Bad, and he, with the two other English prelates, Walter Offamil and Bartholomew, were members of the small junto which managed the government during the succeeding reign.¹⁵⁷ In the north the archbishop of Rouen and the bishop of Bayeux were relatives of William II,¹⁵⁸ while Becket corresponded with Queen Margaret and the principal officers of the court.¹⁵⁹ Like John of Salisbury, John Belmeis, treasurer of York and bishop of Poitiers, doubtless owed much of his eminence as a linguist to his sojourn in Apulia;¹⁶⁰ Simon of Apulia, later dean of York and bishop of Exeter, was *valde carus et familiaris* to Henry II;¹⁶¹ and if Gervase of Tilbury passed from the English court to service under William II,¹⁶² Peter of Blois, 'the intimate friend' of both kings,¹⁶³ began his career as tutor of William and *sigillarius* in his chan-

¹⁵³ Hugo Falcandus, p. 6; Romualdus, in *M. G. H., Scriptores*, xix. 426; ibn-al Atir, in Amari, *Biblioteca arabo-sicula*, i. 450; supra, n. 5.

¹⁵⁴ Kehr, *Urkunden*, pp. 49, 75-77, 511.

¹⁵⁵ Migne, *Patrologia*, cc. 1461.

¹⁵⁶ Hugo Falcandus, p. 63.

¹⁵⁷ Chalandon, ii, passim.

¹⁵⁸ Hugo Falcandus, p. 109; Stubbs, *Lectures on Mediaeval and Modern History*, p. 149.

¹⁵⁹ *Materials*, v. 247; vi. 396; vii. 142 f.

¹⁶⁰ Webb, *Joannis Saresberiensis Policraticus*, ii. 271.

¹⁶¹ Giraldus Cambrensis, iv. 383; cf. *Epp. Cantuarienses*, p. 276.

¹⁶² *M. G. H., Scriptores*, xxvii. 385; Pauli in *Nachrichten* of the Göttingen Academy, 1882, pp. 313-315.

¹⁶³ Stubbs, introduction to Roger of Hoveden, ii, p. xcii.

cery.¹⁶⁴ The relations of these sovereigns, always friendly, were firmly cemented by the marriage of William to the Princess Joanna in 1177, an event which served as the occasion of still closer contact between the courts. Florius de Camerata, a justiciar under three kings, acted as one of the envoys who were sent to fetch the princess, while of the bishops and courtiers who preceded and accompanied her to Palermo John of Norwich and Osbert, clerk of the king's *camera*, are especially noteworthy as officers of the royal administration.¹⁶⁵ It is plain that both William the Good and Henry II had ample opportunity to keep informed regarding current conditions in each other's kingdom, while with respect to the administrative system of King Roger's time, Henry had an ever-ready source of information in a Sicilian official whom he had called to his side, his almoner and confidential adviser Master Thomas Brown, who as 'Kaid Brun' and *μάστρο θωμά τοῦ βροῦνου* appears as a royal chaplain in Sicily from 1137 to 1149, and has an important place at the English court from 1158 to 1180.¹⁶⁶

How far such connections affected the world of learning, we can only guess. It is, of course, essential not to exaggerate the importance of the Sicilian movement. In spite of its more immediate contact with Greek sources, it shows less vitality than the contemporary humanism of the North, and its translations were less important, both in quantity and in influence, than the great body of material which came through the Saracens of Spain. Still, these Sicilian scholars have an honorable place in the history of European learning. At a time when Latin Europe was just advancing from the Boethian and pseudo-Boethian manuals to Euclid's *Elements*, they were familiar with geometrical analysis and applied mathematics as presented in the most advanced works of Euclid and in Ptolemy's *Optics*, Proclus, and Hero; and

¹⁶⁴ *Epp.* 10, 46, 66, 72, 90, 93, 116, 131, in Migne, ccvii.

¹⁶⁵ Chalandon, ii. 367 f., 376-378; Ramsay, *Angevin Empire*, p. 193; and the sources there cited. Careful copies of the marriage settlement are given by Roger of Hoveden, ii. 95; Benedict of Peterborough, i. 169; Gervase of Canterbury, i. 263; see also Robert of Torigny, ed. Delisle, ii. 75; and Martène and Durand, *Veterum scriptorum collectio*, i. 902, from MS. Vat. Reg. 980, f. 171.

¹⁶⁶ For his biography, see my discussion in *E. H. R.*, xxvi. 438-443.

they had come into possession of the chief work of ancient astronomy, the *Almagest*. In philosophy they appear to have acquired the *New Logic* of Aristotle somewhat earlier than their northern contemporaries, and they had likewise an acquaintance with certain dialogues of Plato and with Diogenes Laertius. Theology and ecclesiastical history were not neglected, and a group of New Testament manuscripts has been traced to Sicilian copyists. The school of Salerno was the leading medical school of Europe. Libraries existed, and the search for ancient manuscripts was carried on. Sicilian scholars could write decent Greek, and — when they were not translating — decent Latin, and they could venture, not without success, into the field of original verse. Within its limits the intellectual movement at the court of King Roger and his son had many of the elements of a Renaissance, and like the great revival of the fourteenth century, it owed much to princely favor. It was at the kings' request that translations were undertaken and the works of Nilus and Edrisi were written, and it was no accident that two such scholars as Aristippus and Eugene of Palermo occupied high places in the royal administration. In their patronage of learning, as well as in the enlightened and anti-feudal character of their government, the Sicilian sovereigns, from Roger to Frederick II,¹⁶⁷ belong to the age of the new statecraft and the humanistic revival.

¹⁶⁷ For Frederick II, see Chapters XII-XIV.

PREFACE TO THE SICILIAN VERSION OF THE ALMAGEST¹

Eam pingendi Gratias antiqui feruntur habuisse consuetudinem, ut
 unam quidem vultum aversam, due quibus illa manum porrigeret
 aspectarent. Cuius misterii non ignarus dudum memoriter teneo gra-
 tiam simplam profectam duplam reverti oportere. Tui ergo boni
 5 muneris memor, quo earum quas Aristotiles² acrivestatas vocat arcium
 doctrina quasi haustu aque vive animum sicientem liberaliter imbuisti,
 olim quidem anxie queritabam quid tue dignum benivolentie referre
 possem. Nec enim eis que philosophie tardus assecla longo pauperis
 exercitio vene conquisieram purus ingenii torrens fons et domus arcium
 10 pectus penitus indigebat. Opes quoque apud earum contemptorem
 minimum promereri non dubius intelligebam. Angebatur ergo in dies
 magis ac magis animus meus eo molestius sustinens votum quo com-
 plendi voti absolutius facultas negabatur. Verum diutini clamorem
 desiderii superna tandem pietas exaudivit, dignum ut arbitror plene
 15 tribuens remunerationis instrumentum, quod tuum tanto, ut tua pace
 loquar, precedit munus, quanto finis eo quod ad finem laudabilius. Nec
 enim tuum latet acumen quod omni sapienti liquet, numerorum men-
 surarumque scientiam ad eam que astrorum quasi quandam³ introduc-
 tionis prestruere pontem. Huius vero eam partem que siderum motus
 20 speculatur, veterum lima speculum modernorum Claudius Ptolomeus
 astrorum scientie⁴ peritissimus .XIII. perscripsit libris. Qui a Grecis
 quidem mathematica seu megisti sintaxis, a Sarracenis vero almagesti
 corrupto nomine appellantur. Hos autem cum Salerni⁵ medicine in-
 sudassem audiens quendam ex nunciis regis Sicilie quos ipse Constanti-
 25 nopolim miserat agnomine Aristipum largitione susceptos imperatoria
 Panormum transvexisse, rei diu multumque desiderate spe succensus,
 Scilleos latratus non exhorruī, Caribdim permeavi, ignea Ethne fluentia
 circuiui, eum queritans a quo mei finem sperabam desiderii. Quem
 tandem inventum prope Pergusam fontem Ethnea miracula satis cum
 30 periculo perscrutantem, cum occulte quidem alia, manifeste vero mens
 scientie siderum expers prefatum mihi opus transferre prohiberent,
 grecis ego litteris diligentissime preinstructus, primo quidem in Euclidis
 Dedomenis, Opticis, et Catoptricis,⁶ Physicaque Procli Elementatione
 preluī. Dehinc vero prefatum Ptolomei aggressus opus, expositorem
 35 propicium divina mihi gratia providente Eugenium, virum tam grece
 quam arabice lingue peritissimum, latine quoque non ignarum, illud
 contra viri discoli voluntatem latine dedi orationi. In quo nimirum
 mea mens infando pressa labore inceptum sepe destituisset opus, nisi
 superande difficultatis auctor potentissimus amor tui tuumque munus
 40 animum crebra mutui repetitione⁷ pulsarent. Neque enim questus spe

¹ For the MSS. see above, pp. 157-159. I have here followed MS. D, Wolfen-
 büttel Gud. 147, f. 2, which gives the best text of the preface. For the principal
 variants of A and C, see *Harvard Studies*, xxi. 99-102, xxiii. 156 f.

² *De caelo*, 3, 7, 306 A.

³ Om. C D.

⁴ D, *Catoptrics*.

⁵ So all the MSS.

⁶ MS. D, *Salerni*.

⁷ MS. D, *repetitioni*.

motus aut gloria istum potui laborem substinere, cum liquido constet spei locum artifice non relinqui, ubi ars ludibrio et dedecori est. Neque enim artificem mirari potest qui artem non miratur. Sensisti vero et tu nonnullos hiis in temporibus cause quam ignorant iudices audacissimos, 45 qui, ne minus scientes videantur, quecunque nesciunt inutilia predicant aut profana. Iuxta quod Arabes dicunt: Nullus maior artis inimicus quam qui eius expertus est. Eoque pertinacius criminandis artibus instant quo ab earum laude impericie probrum certius sibi conspiciunt immi-
nere. Eos omitto qui honestatis zelo honesta quoque studia persecun- 50 tur. Quos pie peccare recte dixerim dum nocivam curarum putredinem recidere contententes, a sanarum altrice curarum philosophia manum minime continere indiscretam, sed et eam ipsius partem graviori criminatione persecuntur que ingeniis exquisita clarissimis et exculpta quo defecatio ac purior est, eo sapientie vocabulo dignior, eo gratiori qua-
dam compede speculationis iocundissime animos hominum continet alli- 55 gatos. Horum siquidem error sive coloratus honesto malicioso quoque predictorum testimonio fretus, apud imperitos quorum maxima est multitudo in bonarum neglectum arcium efficacissime peroravit, ut iam numerorum quidem mensurarumque scientia omnino superflua et inutilis, 60 astrorum vero studium ydolatria estimetur. Ita nimirum sentiebat vir⁸ religiosus ac prudens cum dicebat: Hoc est igitur illud quadrivium quo his viandum est qui a sensibus procreatis nobiscum ad certiora intelligentie perducere volunt. Eisdem quoque attestatur Remigius⁹ dicens: Cum omnes artes pessumdate essent, apud Egyptios Abraham eos as-
trologiam docuisse. Sed et sanctum Moysen sanctumque Daniele 65 Dominus credo ob astrorum scientiam reprobavit. Stultum quippe creatoris opera contemplari, eorumque speculatione ineffabilem ipsius potentiam ac sapientiam delectabilius admirari. Nefarium quoque penitusque liquet illicitum ad Conditoris cognitionem conditorumque 70 cognitione animum sublevare, Creatorem insensibilem sensibilibus speculatione sibi quodam modo sensibilem comparare. O mentes cecas viamque philosophandi penitus ignorantes! A creatura siquidem mundi invisibilia Dei intellecta conspiciuntur,¹⁰ nec satis insensibilium veritatem percipere potest mens humana ni ad eam preludio sensibilibus sibi 75 viam facultatemque preexcuderit. Hinc a sapientibus institutus est ac diligenter observatus hic studiorum ordo, ut primo quidem ingenite ruditatis nebulas diligenti creatorum disquisitione serenarent, omnibus quidem sed eis potissimum invigilando disciplinis que ipsam sine omni erroris devio sine omni dubitationis scrupulo veritatem contemplant

⁸ Boethius, *De institutione arithmetica*, I, 1 (ed. Friedlein, Teubner, 1867, p. 9, ll. 28 ff.): 'Hoc igitur illud quadrivium est, quo his viandum sit, quibus excellentior animus a nobiscum procreatis sensibus ad intelligentiae certiora perducitur.'

⁹ Probably from the unpublished commentary of Remigius on Martianus Capella. Cf. *De nuptiis Philologiae et Mercurii*, 8, 812.

¹⁰ Rom. I, 20: 'Invisibilia enim ipsius a creatura mundi per ea quae facta sunt intellecta conspiciuntur.'

80 oculum mentis Boetio¹¹ teste rursus illuminant, dehinc vero robore hoc animati in theologica exercitate mentis aciem fiducialiter intendebant. Unde et ab ordine docendi et discendi theologiam metaphisicam nominabant. Verum nostri nimirum aquile hoc quasi quodam molimine giganteo minime indigent sine omni creaturarum adminiculo radiis
 85 summe lucis oculos infigere potentissimi atque summe secreta veritatis efficaciter penetrare. Vix rudimentis a puerilibus celum involant terrasque habitare dedignantur. Super nubes eorum conversatio, atque in ipso summe sinu sapientie sese requiescere gloriantur. Mundanam desipiunt sapientiam, eique vacantium deliramenta subsannant. Tibi
 90 vero, vir mentis serenissime, longe alia mens est. Tu sacras artes et propter se appetendas, scientibus dulces, insciis adorandas rectissime arbitraris. Nec vero tuum fallit acumen quoniam perfectio beatitudinis in plenitudine consistit cognitionis, quo sciendo proficimus, hoc accessum ad beatitudinem fieri, presertim cum ocio quidem mens corrumpatur,
 95 studium vero virtuti sit amicum. Preclarum quoque tibi credo videtur, in quo prestat¹² homo ceteris animalibus hominem homini prenitere. Hinc insurgendum summisque viribus iudicas incumbendum ut omni scientie genere mens illustretur, ad beatitudinem preparetur, suo proprio bono decoretur. Tui ergo tuique similium gratia presentem
 100 hunc laborem ego suscepi, quibus si placeo intentio quoque mihi mea perfecta est. Rideant et insultent artium inimici, ignota iudicent, astrorum studium insaniam predicent. Michi confiteor hec insania dulcis, michi dulce clamare cum Nasone:¹³

Felices anime quibus hec agnoscere primum
 105 Inque domos superas scandere cura fuit!

Faveas ergo summisque tibi vigiliis opus elaboratum benignus queso suscipias. Illud tamen unum super omnia moneo ac rogo ut ea qua et in geometricis usus es edocendis discretione collaudanda ad huius operis lectionem dignos admittas, indignos abigas. Suam quippe rebus
 110 dignis adimet dignitatem, siquis eas communicaverit indignis.

¹¹ Boethius, *De institutione arithmetica*, I, 1 (ed. Friedlein, p. 10, ll. 1-7): 'Sunt enim quidam gradus certaeque progressionum dimensiones, quibus ascendi progredi que possit, ut animi illum oculum . . . demersum orbatumque corporeis sensibus hae disciplinae rursus inluminent.'

¹² Cf. Sallust, *De coniuratione Catilinae*, I, 1; Cicero, *De inventione*, I, 4.

¹³ Ovid, *Fasti*, I, 297-298. In the text of Merkel-Ehwald (Teubner, 1889):

'Felices animae, quibus haec cognoscere primis
 Inque domus superas scandere cura fuit!'

CHAPTER X

NORTH-ITALIAN TRANSLATORS OF THE TWELFTH CENTURY¹

THE history of Greek studies in northern Italy in the twelfth century lacks the coherence and definiteness which we have found in Sicily. The north had no resident Greek population, no Greek monasteries, no university like Salerno, no royal library of Greek manuscripts. It had likewise no political unity, and the connections of its several regions with the East arose chiefly out of the trade of the commercial republics, the contacts of the Crusades, the diplomatic negotiations between the two empires, directed chiefly against the Sicilian kingdom, and the related negotiations of the eastern emperor and the Roman church. Of these the first are probably the most significant, creating as they did the Venetian and Pisan quarters at Constantinople and bringing into residence there a number of scholars who learned Greek and transmitted a certain amount of Greek learning to the West. Some of these, we know, were engaged in permanent service in the imperial household. Besides these more continuous connections, however, the various embassies must be noted, not only as giving us fleeting glimpses of the Italian colony, but as furnishing occasions for the transmission of eastern learning to the West. Especially under Manuel Comnenus do we find a steady procession of missions to Constantinople, papal, imperial, French, Pisan, and other, and a scarcely less continuous succession of Greek embassies to the West, reminding us of the Greeks in Italy in the

¹ Besides newly discovered material, this chapter utilizes my earlier studies on Moses of Bergamo, *B. Z.*, xxiii. 133-142 (1914); Leo Tuscus, *E. H. R.*, xxv. 492-496 (1918), and *B. Z.*, xxiv. 43-47 (1923); and Burgundio, *American Historical Review*, xxv. 607-610 (1920). The article on "Leo Tuscus" was sent to the *B. Z.* in July, 1914, but the cessation of this journal during the war led me to send a revised copy in 1918 to the *E. H. R.*, where it appeared in October. In 1922 the *B. Z.*, without my knowledge, and in evident ignorance of its previous publication, printed the original article.

early fifteenth century.³ It was an opportunity for any scholars who were interested in Greek learning, and occasionally there was a man like the Pisan Burgundio who made good use of it for something besides theology.

Characteristic of these missions are the occasions they furnished for theological disputation over the differences between the two churches; indeed the reports of such discussions are sometimes our best evidence of what was going on in the world of learning.⁴ As early as 1112 we find the archbishop of Milan, Peter Chrysolanus, disputing before the Emperor Alexius with Eustratius of Nicaea and others, as recorded in various Greek texts and in a fragment of the Latin *libellus*.⁵ From 1136 to 1155 the chief figure was Anselm, bishop of Havelberg since 1129, and from 1155 to his death in 1158 archbishop of Ravenna.⁶ Sent by the Emperor Lothair in 1136, he took occasion to thresh out theological matters with Nicetas, archbishop of Nicomedia, and others.⁶ He was again in Constantinople in 1153 and 1154, and on his way back in April, 1155, he debated with Basil of Achrida at Thessalonica.⁷ Henry, archbishop of Benevento, who was in Constantinople on behalf of Alexander III in 1161 and again in

³ See in general Chalandon, *Les Comnènes*, ii. 161-173, 259-262, 343-361, 555-608; and the literature there cited.

⁴ See in general Hergenröther, *Photius* (Regensburg, 1869), iii. 789 ff.

⁵ For the speeches of Eustratius and John Phurnes, see Demetracopoulos, *Bibliotheca ecclesiastica* (Leipzig, 1866), i. 36 ff. (cf. Dräseke, in *B. Z.*, v. 328-331); for the Greek text of Chrysolanus, Migne, *Patrologia Graeca*, cxxvii. 911-920. The Latin fragment of Chrysolanus is at Monte Cassino, MS. 220, f. 149, printed in *Bibliotheca Cassinensis*, iv. 351-358. Cf. Chalandon, *Les Comnènes*, i. 263, n; Krumbacher, p. 85; Tiraboschi, *Storia della letteratura italiana* (1787), iii. 324-327; Hergenröther, *Photius*, iii. 799-803; Hurter, *Nomenclator*, ii. 12 f.

For similar instances in the eleventh century, see Petrus Diaconus, in Migne, *P. L.*, clxxiii. 1027, 1043; and cf. Manitius, *Lateinische Literatur*, ii. 384 f.

⁶ E. Dombrowski, *Anselm von Havelberg* (Königsberg, 1880); J. Dräseke, in *Zeitschrift für Kirchengeschichte*, xxi. 160-185 (1900).

⁷ For Nicholas of Methone in 1136, see Dräseke, *B. Z.*, i. 458 ff.

⁸ For the discussion as to the date of these missions, see especially Kap-Herr, *Die abendländische Politik Kaiser Manuels* (Strasburg diss., 1881), pp. 148-151; Simonsfeld, *Jahrbücher Kaiser Friedrichs I*, i. 200, 231, 300; Chalandon, ii. 344 f. For the debate with Basil, see Josef Schmidt, *Des Basilii aus Achrida bisher unedirierte Dialoge* (Munich, 1901); and for Basil in general, Vasilievskii, in *Visantiskii Vremennik*, i. 55-132 (1894).

1165 and 1166, seems also to have opposed Basil.⁸ In 1169-1170 the patriarch of Constantinople, Michael Anchialou, addressed to the Emperor Manuel a dialogue against the Latins, apparently directed at the two cardinals then on a mission in the East,⁹ and Andronicus Kamateros puts a similar dialogue in the mouth of the Emperor, who interested himself actively in such debates.¹⁰ At some time between 1130 and 1182 Henry, patriarch of Grado, had a friendly discussion with Theorianus.¹¹ Down to about 1166 Nicholas of Methone¹² was an outstanding figure in these controversies with the Latins, first with Anselm and later with a resident Pisan, Hugo Eterianus, to whom we shall come below; while in the period just preceding 1179 we shall find Hugo collecting materials from the Greek Fathers for the benefit of an emissary of Frederick Barbarossa. As late as the Fourth Crusade an anonymous Greek records his earlier contentions with Hugo.¹³ Many other undated polemics of this period might be listed,¹⁴ Greek polemicists even appearing at Rome in 1150 and at the Lateran council of 1179.¹⁵ On the Latin side it is obvious that northern Italy had a noteworthy share in these theological controversies.

Certain of these discussions seem to have been stenographically reported,¹⁶ and in any case they are set forth at length in Greek manuscripts, many of which have now been published. The discourses of the Latins are less well known, being sometimes recorded only in the Greek reports. Still we have the fragment of

⁸ Schmidt, pp. 27 f.; Chalandon, ii. 559, 563 f.

⁹ Loparev, in *Vizantiskii Vremennik*, xiv. 334-357 (1907).

¹⁰ Migne, *Patrologia Graeca*, cxli. 395; Hergenröther, *Photius*, iii. 811-814.

¹¹ Migne, *P. G.*, xciv. 404-409.

¹² Dräseke, in *Zeitschrift für Kirchengeschichte*, ix. 405-431, 565-590 (1888); idem, *B. Z.*, i. 438-478 (1892); cf. vi. 412.

¹³ Arsenii, as noted in *B. Z.*, iv. 370, n.

¹⁴ Hergenröther, iii. 803 f.; Krumbacher, pp. 87-91; Chalandon, ii. 653; dialogues of Nicetas of Maronea in *Bessarione*, xvi-xix (1912-15).

¹⁵ Migne, *P. L.*, clxxxviii. 1139; Nectarius of Casule at the Lateran Council, Baronius, *an.* 1179, nos. x-xii. Cf. Nicholas of Casule at Constantinople ca. 1205: Engdahl, *Beiträge zur Kenntnis der byzantinischen Liturgie* (Berlin, 1908), pp. 85 f., and references.

¹⁶ *B. Z.*, xv. 358.

Chrysolanus,¹⁷ the *Dialogi* of Anselm of Havelberg,¹⁸ written out at the Pope's request fourteen years after the disputation of 1136, and the controversial writings of Hugo Eterianus.¹⁹ Theology of a less contentious sort found its way westward in the translations of Burgundio and in an anonymous treatise *De diversitate nature et persone*.²⁰ Interpreters were needed for such debates, as well as for the diplomatic negotiations of the missions;²¹ sometimes they accompany the emissaries, and again they are chosen from the resident Latins, and it is among these men who knew Greek that we can most profitably seek evidence of intellectual connections with the West. The best example is found in the account which Anselm of Havelberg gives of his public debate with Nicetas, held in the Pisan quarter at Constantinople in April, 1136. Among the multitude present

Aderant quoque non pauci Latini, inter quos fuerunt tres viri sapientes in utraque lingua periti et litterarum doctissimi, Iacobus nomine Veneticus natione, Burgundio nomine Pisanus natione, tertius inter alios precipuus grecarum et latinarum litterarum doctrina apud utramque gentem clarissimus Moyses nomine Italus natione ex civitate Pergamo; iste ab universis electus est, ut utrumque fidus esset interpres.

Each of these interpreters is otherwise known as a translator. Let us begin with the one whom Anselm considered the most eminent. Moses of Bergamo, though he has long held a place in Italian historiography, is as yet unknown as a grammarian and translator, and his position as intermediary between Greek and western learning requires further study. The principal source of information respecting him is his letter, written probably in 1130, to his brother Peter de Brolo,²² provost of the church of S. Alessandro at Bergamo.²³ Moses is then resident at Constantinople

¹⁷ Supra, n. 4. See also Masново, in *Archivio storico lombardo*, xlix. 1 (1922).

¹⁸ D'Achery, *Spicilegium* (Paris, 1723), i. 161-207; Migne, clxxxviii. 1139-1248.

¹⁹ Infra, n. 121.

²⁰ Infra, n. 108.

²¹ E. g., 'Gibertus interpres imperii' in 1170: *M. G. H., Scriptores*, xviii. 86.

²² Also known as Peter di San Matteo; cf. Capasso, in *Archivio storico lombardo*, fourth series, vi. 301.

²³ Lupi and Ronchetti, *Codex diplomaticus civitatis et ecclesiae Bergomatis* (Bergamo, 1790-99), ii. 949-962, where the date is discussed. Cf. the analysis given by Capasso and Pesenti in the articles cited below.

and engaged in the emperor's service,²⁴ which has recently taken him to Thessalonica. He has various relatives and friends in and about Bergamo whom he hopes soon to visit; he has not forgotten the churches of his native city in distributing funds at his disposal, and the cathedral receives four pallia by his gift.²⁵ In Venice he is in relations with the abbot of S. Niccolò and with Domenico Bassedelli, *iudex et maximus terre vir*, master of the ship which had brought the relics of St. Stephen from Constantinople in 1110,²⁶ either of whom will forward the young relative whom he asks his brother to send in place of their deceased nephew. Peter's last letters had come at the hands of a certain John the Roman, who had been sent on a mission by Milan and whose shabby appearance and undignified conduct were particularly offensive. At Constantinople Moses is a man of some wealth with a position to sustain, but in the burning of the Venetian quarter he has recently lost the greater part of his fortune, to the value of more than 500 bezants, including his whole collection of Greek manuscripts, brought together by long effort at the price of three pounds of gold.²⁷

This remarkable zeal for collecting manuscripts entirely accords with Anselm's account of Moses' learning and leads the way to an inquiry concerning his literary labors. His most important work is the so-called *Pergaminus*, a poem in three hundred and seventy-two rhyming hexameters descriptive of the city of Ber-

²⁴ 'Me principis violentia percinctum laborem subire coegit.' We can only conjecture the nature of his employment, unless we attach some weight to the note in the MS. of the *Pergaminus* which calls him 'valens et probus homo in scriptura in curia imperatoris Cplani.' Moses mentions his influence at the imperial *vestiarium*.

²⁵ See the "Indiculus de codicibus et ecclesiasticis suppellectilibus a Petro proposito comparatis" in Lupi, ii. 921.

²⁶ *Translatio S. Stephani*, in Cornelius, *Ecclesiae Venetae* (Venice, 1749), viii. 106. Monticolo's forthcoming edition will doubtless identify more fully the numerous Venetians mentioned in this narrative. Bassedelli witnesses a Venetian document of 1124 in Gloria, *Codice diplomatico padovano*, no. 162.

²⁷ 'Combusti sunt igitur omnes libri greci quos multo dudum labore conquieseram precii trium librarum auri et reliqua universa nisi siquid in auri puri moneta fuit, que mihi iactura damni plus D. byzantiis intulit.' The fire is not mentioned by the Venetian chroniclers: Heyd, *Histoire du commerce du Levant* (1885), i. 196 n. On the Venetian quarter in this period, see now Horatio F. Brown, in *Journal of Hellenic Studies*, xi. 68-88 (1920).

gamo and constituting a source of prime importance for the early history of the commune.²⁸ First published under the name of a Moses Muzio or Mozzi with the date of 707 and a dedication to Justinian II, it was shorn of these fictitious adornments by the criticism of Muratori and can now be placed with reasonable certainty in the early years of the twelfth century.²⁹ In the unique manuscript of the fifteenth century the treatise is anonymous, but it is cited two hundred years earlier as the work of 'Magister Moyses,' and a contemporary gloss in the manuscript calls him 'Magister Moyses Pergamensis valens et probus homo in scriptura . . . in curia imperatoris Constantinopolitani.' The identity with the author of the letter to the provost Peter has been further established by the stylistic resemblances between the two works and particularly by Grecisms in the text of the *Pergaminus*. For its age the poem gives evidence of some literary skill and a respectable Latin culture.

The editors and critics of the *Pergaminus* have been acquainted with no other literary work of Moses. Tiraboschi, however, long ago attributed to him an *Expositio* of the Greek words in the biblical prefaces of St. Jerome which four manuscripts mentioned as the work of a certain Moses,³⁰ and this treatise, first described by Hauréau,³¹ was edited by Pitra in 1888³² and, more critically, by Gustafsson in 1897.³³ Oddly enough, none of these scholars

²⁸ Muratori, *Rerum Italicarum Scriptores*, v. 521-536. See especially the studies of Capasso, "Il 'Pergaminus' e la prima età comunale a Bergamo," in *Archivio storico lombardo*, 4th series, vi. 269-350 (1906); and Pesenti, "Il Pergaminus," in *Bollettino della civica biblioteca di Bergamo*, vi. 121-151, vii. 1-22 (1912-13). The suggestion of Giesebrecht (Munich *Sitzungsberichte*, 1879, ii. 279) that Moses was also the author of the poem of 1162-66 now edited by Monaci as *Gesta di Federigo I in Italia* (Rome, 1887) has been refuted by Monaci on chronological and other grounds.

²⁹ Pesenti argues from the mention of Bishop Ambrose without his title that the poem is anterior to his consecration in 1111, but the argument does not seem to me decisive.

³⁰ *Storia della letteratura italiana* (1787), iii. 351, citing a MS. of the Marciana and three from Leipzig and Paris catalogues. Pesenti had a vain search made for the lost MS. of the Marciana, but went no further in his efforts and knows nothing of the editions.

³¹ *Notices et extraits des MSS.*, xxxiii, 1, p. 244; *Notices et extraits de quelques MSS.*, i. 122.

³² *Analecta sacra*, v. 125-134.

³³ *Moysi Expositio*, in *Acta Societatis Fennicae*, xxii, no. 3; cf. B. Z., vi. 461.

thought of identifying the Moses of the title with the Bergamask writer of this name, and as 'Magister Moyses de Grecia' he has secured a separate entry in bibliographical literature.³⁴ This Moses was otherwise unknown to Hauréau; Pitra attached him conjecturally to the school of Scotus Eriugena and the Irish masters of the ninth century; Gustafsson inclined to the twelfth century because of the *copiae litterarum vere largae* manifest in the work, but could neither identify or place him. No known manuscript describes the author more definitely, yet Tiraboschi's identification is highly probable. This Moses cannot be later than the twelfth century, the date of the earliest manuscripts, and his learning and style could not well have been found earlier. He has lived in the East long enough to be called *grecus* and to get an acquaintance with Byzantine writers and a very considerable knowledge of the language, yet he handles Latin easily and correctly and cites Caesar, Lucan, Terence, Horace, and Virgil. All this agrees entirely with Moses of Bergamo and, so far as we now know, with no one else of the name.³⁵ Moreover, as we shall see, there are parallelisms with another work specifically ascribed to the Bergamask author. The treatise does not discuss all the Greek words in Jerome's prefaces, but it covers the most obvious difficulties and adds various illustrations and amplifications, of which the longest, the chapter devoted to *Homerocentones*, is a definite contribution to our information on this subject. The author's knowledge of Greek and Latin grammar is rarely at fault and amply confirms Anselm's opinion of his attainments in the two languages.³⁶ Probably the *Expositio* is not the earliest of his

Gustafsson has made a wider but not a complete use of the MSS. and bases his edition upon two at Munich and two at Leipzig. To his list should be added the lost Venetian codex and the extracts in Add. MS. 35091, ff. 115-116, of the British Museum.

³⁴ E. g., Chevalier, *Bio-bibliographie*², col. 3271.

³⁵ The German gloss *antfriston* in c. 13, in spite of Traube's opinion that it was probably in the archetype (Gustafsson, p. 9), does not seem to me sufficiently established as part of the original to serve as a basis of inference concerning the author.

³⁶ Gustafsson says (p. 9): 'Aliquantulum . . . inter vulgares magistrorum greges eminet et rerum copia et praeceptorum prudentia et sinceritate quadam sermonis.'

literary labors; in any case it had its origin in an inquiry concerning *Homero-centones* made many years before in a letter from a British clerk named Paganus,³⁷ at a time accordingly when Moses had already acquired a certain reputation for Greek learning.

Another evidence of the literary activity of Moses of Bergamo is found in a treatise hitherto unknown which is definitely ascribed to him in the only manuscript which I have been able to discover, MS. 52 of the Bibliothèque de Nîmes.³⁸

Moses Pergameni prologus in presens opusculum quod ipse de greco transtulit

Cum sapientis cuiusdam grece lingue librum necessaria quedam querendo percurrerem, contigit hunc quoque me circa finem reperire libellum. Cuius titulo mox percurso tanto protinus eum quoque legendi sum desiderio tactus ut, iis intermissis quorum mihi fuerat occasione repertus, ad ipsum me tota mentis aviditate converterem. Cum vero diligenter eum finetenus perlegissem, quamvis et frigus ingens velut circa mensis decembris initium foret et occupationes alie me plurime circumstarent, nocturnis me vigiliis et translationis laboribus tradidi, ne pretiosum repertum thesaurum solus possidens invidie vel inertie merito ceu piger et nequam servus arguer, cum presertim grecas litteras propter id potissimum didicisse me sim sepe testatus, ut ex eis in nostras siquid utile reperirem quod nobis minus ante fuisset debita devotione transverterem. Gratias igitur ago Deo quia, sicut ait apostolus,³⁹ qui dedit velle dedit et perficere pro bona voluntate. Te vero, lector amice, devote rogo, quisquis hunc labosculum nostrum transcribere forte dignaberis, ne transcriptum cum suo prototypo⁴⁰ conferre graveris,⁴¹ nec turbare queso si cum titulum materie legeris auctoris nomen suppositum non inveneris. Quamvis enim conditoris nomen in fronte de more non gerat, nichil in eo tamen⁴² videri debet apocryphum, cum totum quicquid id est de sacra sit pariter canonicaque scriptura collectum. De me quoque qui transtuli proemio supplicando subiungo quatinus ego Moyses videlicet pergamenus cum per me tibi tradita legeris orationibus tuis seu vivus seu luci subtractus interserar.

*Exceptio compendiosa de divinitus inspirata scriptura sive argumentum orthodoxe fidei de Sancta Trinitate quod in tribus est personis deitas et quod ante secula Filius et Spiritus et quam divina scriptura quanque quidem de essentia natura scilicet nos doceat deitas quanque vero de diversis personis ipsius. De Sancta Trinitate Moyses in Genesi:*⁴³ Et dixit Deus, Faciamus hominem ad imaginem et similitudinem nostram . . .

³⁷ 'Quidam clericus nomine Paganus Britannus genere.' To an Italian this can hardly mean Breton, as Hauréau interprets it.

³⁸ Saec. xiii ineuntis, ff. 96-126. See *Catalogue général des MSS. des départements*, old series, vii. 557.

³⁹ Philippian, ii. 13.

⁴¹ MS. *gravis*.

⁴³ Genesis, i. 26.

⁴² MS. *prototypo*.

⁴⁰ MS. *iam*.

What treatise is here translated is a question which I must leave to specialists in Greek theology. In itself the work is of slight interest, being little more than a catena of passages, largely from the Old Testament, dealing with the life of Christ. Gregory and Chrysostom are cited, and on two occasions the author comments on Greek words after the manner of the *Expositio*. In one of these (Sirach, li. 9) he finds it necessary to distinguish between *κεσίαν* and *οἰκῆσιν*, in the other (Habbakuk, iii. 2) he explains the difference between *ζωή* and *ζῶον*.⁴⁴ In the preface the writer's fondness for *ceu* and for locutions like *me sim sepe testatus* can also be paralleled in the *Expositio*,⁴⁵ while the request for the reader's prayers is noteworthy in both.⁴⁶ One new fact is here brought out besides the explicit mention of the writer's name, the fact that Moses was a translator as well as a grammarian, and learned Greek for the special purpose of turning into Latin works not previously known in the West. Further search may perhaps disclose more significant examples of his work in this field.

Meanwhile we may with high probability identify another specimen of his grammatical exegesis. In MS. 22 of the Bibliothèque Nationale at Luxembourg⁴⁷ the *Expositio* is followed in the same hand by a brief treatise written in answer to an inquiry respecting the accentuation of the oblique cases of *character*. The reply first gives the principal parts of *χαράσσω* and a list of its derivatives with their Latin equivalents, and then accompanies the declension of *χαρακτήρ* with a discussion of the inflexion of nouns in *-ηρ* which is based directly on the *Κανόνες* of Theodosius of Alexandria. The whole treatment is in the manner of the *Expositio* and the glosses in the Nîmes manuscript, and there are

⁴⁴ Ff. 97 v, 115. Cf. in the *Expositio*, cc. 10, 20, 30, 39, the accentuation of *δοτῆς* and the distinction between *ἐρυμος* and *ἐροῖμος*, *συκὴ* and *σῦκον*, *σίτρος* and *σῖτρον*.

⁴⁵ *Ceu nescius*, p. 16, l. 19; *ceu pulo*, p. 17, l. 22; *sim sepe rogatus* in the Luxembourg version of the epilogue (van Werveke, *Catalogue des MSS.*, p. 42).

⁴⁶ See the prologue of the *Expositio* and the more developed conclusion of the Luxembourg MS.: 'vovens et petens pariter per orationes eorum iuvari quibus hec per me nota profuerunt.'

⁴⁷ Saec. xiii, ff. 179-180; extracts in van Werveke, *Catalogue*, p. 42. For kind assistance in securing photographs I am greatly indebted to the librarian, M. d'Huart.

parallelisms in phraseology.⁴⁸ Unfortunately this folio of the manuscript has been injured just where we should expect to find the name of the author and a further description of the addressee, so that no writer is named. The *Item*, however, which connects this tract with the *Expositio* creates a strong presumption in favor of Moses, which is confirmed by the style and mode of treatment. The brother Alexander of the dedication is otherwise unknown, but the text is corrupt, and we are justified in suspecting a scribe's confusion with the name of the church, S. Alessandro, of which Peter de Brolo was provost; we may conjecture that the treatise was addressed to Peter, whose literary and theological interests are known from the library which he collected.⁴⁹ The mention of Dacia would seem to point to the Danubian campaigns of John Comnenus in 1128,⁵⁰ on which Moses may have accompanied him in some secretarial position such as he seems to have held at the court. The text reads:

Item ad Alexandrum prepositum ex Dacia

Quesivit a me nuper prudentia tua, Alexander domine mi frater atque dig⁵¹ (f. 179 v)
nomen per oblicos casus proferri deberet in penultima silliba. Libenter ergo tibi Deo donante declarabitur protinus quod quesisti cum prius tamen patuerit quale sit hoc nomen vel unde sit tractum. *Charasso* sive *caracto*, nam per .s. geminum solent apud Grecos huius modi verba scribi sive per .t., per .s. secundum linguam communem per .t. secundum atticam, ut *thalassa* sive *thalatta*, hoc est mare, *philasso* sive *philato*, hoc est custodio vel servo. Sunt huius verbi duo preterita perfecta, primum quidem *parakeimenon* id est adiacens, quod est *kecharacha*, secundum vero quod dicitur *aoriston* id est infinitum, id est *ekaraxa*, sicque⁵² duo quoque sunt eius infinita, a *para-keimeno* quidem⁵³ *kekarakene* ab infinito vero *caraxe* vel *caraxein* communiter vel *caracten* attice. Significat autem hoc verbum fodere vel cavare sive signare. Derivatur ex hoc *carax*, id est corona amminiculorum infixorum circa vitem per que possit ipsa sustentari ne propria debilitate corruat vel canabis vel cuiuslibet talis in campo vel crista fosse circa locum quemvis muniminis causa quam nos vallum vocare solemus. Hinc aliud verbale

⁴⁸ E. g., the use of *protinus* (cf. the Nlmes prologue), *sufficientissime respondisse* (cf. *Expositio*, p. 29, l. 22), and the discussion of *πλάσσω* (*Expositio*, p. 18, l. 7).

⁴⁹ *Codex diplomaticus Bergomalis*, ii. 919-924. Peter's name is connected with S. Alessandro in both the *Indiculus* and the letter of Moses, so that the basis of the scribe's confusion could easily have existed in the address of the treatise.

⁵⁰ See Chalandon, *Les Comnènes*, ii. 58-62. Cf. the *percinctum laborem* and the journey to Thessalonica in the letter to his brother.

⁵¹ One and a half lines gone.

⁵² MS. *sed que*.

⁵³ MS. *quod*.

nomen *characoma* quod nos recte vallationem seu vallamen possumus dicere. Hinc etiam *charagma* quod simpliciter quodlibet signum significat vel insignitionem⁵⁴ monete que de hoc equidem verbo femmino quoque genere *charage* grece dicuntur. Hinc *parachasimon*⁵⁵ *nomisma* dicitur adulterine monete. Hinc corrupte latinum verbum dicitur tractum charaxare, quod est minutim fleobotomo id est ferro vene cesorio plagas infligere quibus ventose superponuntur ad eliciendum sanguinem. Ex hoc ergo verbo grece quod est *charatein* sive *charassein*⁵⁶ derivatur verbale nomen *charactes*, id est signator, sicut *apoen*⁵⁷ *plasso* quod est fingo *plistes*, id est fictor,⁵⁸ *character* quoque pariter, id est effigies vel effigatio sive statua, unde est:

Cuius ad effigiem non tantum meiere⁵⁹ fas est.⁶⁰

signum vel in ovibus vel in ceteris animalibus cuius impressione dominis suis cercius cognoscantur. Est autem nomen hoc apud grecos *ixilonon*, id est quod acuto circa finem profertur accentu, per oblicos vero casus universos circumflexo tono profertur in penultima sillaba, id est *tu caracteres to characteri ton caractera* genitivum dativum accusativum singulares, *hoi caracteres tus caracteras o caracteres* nominativum et accusativum et vocativum plurales. Nam genitivus pluralis *ton caracteron* acuitur in penultima sillaba eo quod ultima sillaba producit per *ω*. mega ratione regule que communis est et nobis et Grecis quia in polisillabis dictionibus si penultima natura longa est ultima vero brevis, penultima circumflectitur, ut in superioribus obliquis id est *caracteros caracteri* monstratum est. Si vero ambe longe sint, acutus accentus est in penultima, ut huius et e et o Muse. Hoc autem nomen id est *karader* in notatione⁶¹ grece per *ητα* scribitur que semper longa est quamque nos semper in e longam vertimus, ut *Κρητη* Crete *Μυτυληνη*, et e contrario Greci nostrum .e. longum sepe vertunt in eta suum longum similiter, ut rex *ηx* reges *ηges*. Ut autem nomen hoc in fine nominativi casus et in penultimis obliquorum circumflectitur, talis apud Grecos de ipso vel ceteris similibus regula est. Eorum in *ητ* oxitonorum sunt quotquot quidem habent .t. per etam declinantur, ut *luter luterōs*, id est vas in quo lavantur, ut in Moysi lege sepe legitur quod nos latine labium vel labellum dicimus seu vas significet seu partem eris, ex verbo lavo vel luo sicut grece *luter* ex verbo *luein* seu *luse* quod nos similiter dicimus luere; *capler*⁶² *apteros*, id est flexus sive flexura (f. 180) vel meta circensium ludorum circa quam [regimen currus flectitur que *captos* quoque dicitur, sicut nos quoque flexuram omnem vel angulum vocare solemus, de verbo *caplo* id est flecto quod nos cambire vel campare dicere consuevimus; *elater elatēros* id est agitator, de verbo *elan* id est agitare. Excipi

⁵⁴ MS. *insigninom*.

⁵⁵ I. e., *παραχαράξιμον*.

⁵⁶ MS. *charasseim*.

⁵⁷ Sic. Perhaps some reference to *ποιεῖν ποιητής* has dropped out.

⁵⁸ Cf. *Expositio*, p. 18, l. 7: 'πλάσσω grecum verbum est quod latine proprie fingo dicitur. Hinc nomen verbale *πλάστης* vel *πλαστήρ* id est fictor.'

⁵⁹ MS. *melere*.

⁶⁰ Juvenal, *Sat.*, 1, 131. A space of about ten letters is gone before *signum*.

⁶¹ MS. *noīō*. Hereafter the MS. regularly has *η* written above the *ela* of the Latin text.

⁶² I. e., *καμπτήρ, καμπτός, κάμπτω*.

tur *pathr patēros* quod per .e. breve nostrum simul ac ipsorum commune scribitur in penultima per casus omnes obliquos *pateros pateri patera pateron patēres* acuta penultima sed ⁶⁵ correpta. Quotquot vero non habent .t. per .e. breve scribuntur, ut *ether ethēros daer daeros*, id est frater mariti, *aer aeros*, apud eos acuta penultima cum sit ultima brevis. Excipiuntur *spinter spinteros*, id est scintilla, *eleuter*, id est ventor *eleuteros*. Et hoc est canon tricesimus secundus masculinorum nominum apud Grecos indeclinabilibus nominum de oxitonis in ηr.⁶⁴ Tricesimus vero tertius de varotonis in ηr similiter: ⁶⁵ *o pinr tu pieros o iber tu iberos*.⁶⁶ In ηr per eta varitonorum quaecunque quidem longa penultima sunt per .e. tenue breve scilicet declinantur, ut *frater frateros*, id est frater fratris, *pinr pieros* acuta antepenultima per obliquos. Quaecunque vero brevem habent penultimam per eta id est .e. longum declinantur, ut *ibnr iberos* ⁶⁷ similiter acuta antepenultima sed producta scilicet propter η. perpetuo longum, apud nos vero circumflexa cum sit longa ante breve secundum superiorem regulam polisemarum dictionum. Lucanus: ⁶⁸

Interea Caesar victis remeabat Iberis.

Eadem est η. penultima sive Iber Iberis declines sive Iberus Iberi. Et Virgilius: ⁶⁹

Haut impacatos a tergo horrebis Iberos.

Panther ⁷⁰

id est fera, quam ⁷²

ke tu theros,⁷¹

per mutationem in .e.

nostrum longum acuitur apud eos in penultima nominativi in obliquis vero in antepenultima nisi in genitivo plurali ubi penultima acuitur *lon pantheron*, apud nos vero circumflectitur penultima per omnes obliquos cum ipsa longa sit et ultima brevis ratione polisemarum dictionum per omnes casus singulares et plurales, ut genitivus *panteris* dativus *panteri* accusativus *pantera* nominativus pluralis *panteres* genitivus *pa[n]terum* accusativus *panteras* vocativus *panteres*, quorum omnium brevis est, dativus et ablativus pluralis acuitur in antepenultima cum ipsa sit longa due vero sequentes breves. Sciendum preterea quod pater et mater et frater ex eta greco sicut in latinum .e. versa rectius producuntur quam brevientur, quamvis ea frequens consuetudo breviet, ut Inde toro pater Eneas,⁷³ et Frater ad alloquium,⁷⁴ et Mater et Enee.⁷⁵

Quare ⁷⁶ hoc quod tibi, dilecte frater, de multis nominibus devote sit oblatum munusculum, quamvis tu de uno solo quesiveris. Ego munus meum non

⁶⁵ MS. si.

⁶⁴ Theodosii Alexandrini *Canones*, ed. Hilgard (Leipzig, 1889), p. 23, c. 32: 'Ο λουτήρ τοῦ λουτήρος, ὁ αἰθήρ τοῦ αἰθέρος: τῶν εἰς ἥν δξυτόνων ὅσα μὲν ἔχει τὸ ῥ διὰ τοῦ ἥ κλίνεται, καμπτήρος ἐλατήρος, σεσημειωμένου τοῦ πατέρος ἀστέρος: ὅσα δὲ μὴ ἔχει τὸ ῥ διὰ τοῦ ἥ κλίνεται, αἰθέρος δαέρος, σεσημειωμένου τοῦ σπυθήςρος Ἑλευθήςρος.

⁶⁵ Idem, c. 33: 'Ο Πίηρ τοῦ Πίερος, ὁ Ἴβηρ τοῦ Ἴβηρος: τῶν εἰς ἥν βαρυτόνων ὅσα μὲν μακρῇ παραλήγεται διὰ τοῦ ἥ κλίνεται, φράτερος Πίερος, ὅσα δὲ βραχείᾳ παραλήγεται διὰ τοῦ ἥ κλίνεται, Ἴβηρος ἐρήρος: τὸ δὲ πάνθῃ τοῦ ἀπλοῦ τὴν κλίσιν ἔδειξτο.

⁶⁶ MS. *inhr ineros*.

⁶⁷ *Georgica*, 3, 408.

⁷² Half a line gone.

⁶⁸ MS. *uinr uieros*.

⁷⁰ One line gone.

⁷³ Virgil, *Aeneid*, 2, 2.

⁶⁹ *Pharsalia*, 5, 237.

⁷¹ MS. *thuros*.

⁷⁴ I have not identified this quotation.

⁷⁵ Ovid, *Ars amatoria*, 1, 60: 'mater in Aeneae.'

⁷⁶ MS. Q;

soleo verbis ornare velut quidam cum de *in* prepositione regulam quesitus dixit, "Egregiam vobis scribo regulam," volens ut credo munus suum maius his qui quesiverant facere quam ipsi forsitan essent facturi. Fecisti mihi nuper et alteram questionem prolixam satis et acute compositam de duobus nostre salutis muneribus, sed [cum] per multos magnos sepe et claros⁷⁷ viros sit diserte soluta tuque circa finem sis tibi visus sufficientissime respondisse, satius mihi videtur penitus inde tacere quam que per eos habunde dicta sunt vel nulla potius redarare. Sit ergo opusculum sicut petisti si nichil melius per me forte possit⁷⁸ tuo nomini dedicatum. Explicit.

The literary reputation of Moses and the nature of his writings indicate that the works which have thus far come to light are only fragmentary remains of a many-sided activity. A Latin poet, a translator from the Greek, a grammarian, and a collector of Greek manuscripts, he might almost hold his own three hundred years later. We cannot call him a humanist, for his culture reflects rather the theological preoccupations of his age, but he was at least a Hellenist and is entitled to an honorable place in conjunction with the renaissance of the twelfth century.

Of the two other Latins mentioned by Anselm of Havelberg, James of Venice is known only as the translator of Aristotle's *New Logic*, and we shall have occasion to examine his work in that connection.⁷⁹ Burgundio the Pisan is more celebrated, by reason of his public career as well as of his indefatigable zeal as a translator.⁸⁰ Appearing first at the debate of 1136 in Constantinople, he is found in legal documents at Pisa from 1147 to 1180, first as an advocate and later as a judge; he is sent on diplomatic missions to Ragusa in 1169 and to Constantinople in 1172,⁸¹ and is present at the Lateran Council of 1179; and he died at a ripe old age in 1193. The sonorous inscription on his tomb is still preserved, celebrating this *doctor doctorum, gemma magistrorum*, eminent alike in law, in medicine, and in Greek and Latin letters;

⁷⁷ MS. *claros*.

⁷⁸ MS. *p^e*.

⁷⁹ *Infra*, Chapter XI.

⁸⁰ See particularly G. M. Mazzuchelli, *Gli scrittori d'Italia* (Brescia, 1753), ii, 3, pp. 1768-1770; [Fabroni], *Memorie istoriche di più uomini illustri pisani* (Pisa, 1790), i, 71-104; Savigny, *Geschichte des römischen Rechts im Mittelalter* (1850), iv, 394-410; F. Buonamici, "Burgundio Pisano," in *Annali delle università toscane*, xxviii (1908); P. H. Dausend, "Zur Uebersetzungsweise Burgundios von Pisa," in *Wiener Studien*, xxxv, 353-369 (1913).

⁸¹ Besides the documents cited by Savigny, see G. Müller, *Documenti sulle relazioni delle città toscane coll' Oriente* (Florence, 1879), pp. 18, 416 ff.

and this reputation is confirmed by the surviving manuscripts of his work.⁸² Translation was evidently not the principal occupation of this distinguished career, indeed Burgundio tells us that one of his versions required the spare time of two years, but his long life made possible a very considerable literary output. Theology held the first place: John of Damascus, *De orthodoxa fide* (1148-50), which had been "preached for four centuries as the theological code of the Greek church";⁸³ the *Homilies* of John Chrysostom on Matthew (1151)⁸⁴ and John (1173)⁸⁵ and perhaps on Genesis (incomplete in 1179);⁸⁶ St. Basil on Isaiah (before 1154);⁸⁷ Nemesisius, *De natura hominis*, dedicated to Frederick Barbarossa on his Italian expedition of 1155;⁸⁸ perhaps others.⁸⁹ Two of these versions were dedicated to Pope Eugene III, who secured a manuscript of Chrysostom from the patriarch of Antioch and persuaded Burgundio to undertake the task of turning it into Latin.⁹⁰ His results were used by the great theologians of the Western Church, such as Peter Lombard and Thomas Aquinas;⁹¹ indeed he "made accessible to the West works which exercised

⁸² Cf. his survey of previous translations, ancient and mediaeval, from the Greek, *supra*, Chapter VIII, note 36. For the epitaph see Buonamici.

⁸³ J. Ghellinck, "Les Oeuvres de Jean de Damas en Occident au XII^e Siècle," in *Revue des questions historiques*, lxxxviii. 149-160, reprinted in his *Le mouvement théologique du XII^e Siècle* (Paris, 1914), pp. 245-275, where further studies of Burgundio are promised. Cf. M. Grabmann, *Geschichte der scholastischen Methode*, ii. 93; Duhem, iii. 37; Minges, in *Theologische Quartalschrift*, 1914, pp. 234 ff.

⁸⁴ Preface in Martène and Durand, *Veterum scriptorum amplissima collectio* (Paris, 1724), i. 817. On the date, cf. Dausend, in *Wiener Studien*, xxv. 357.

⁸⁵ Preface, incomplete, Martène and Durand, p. 828; see Chapter VIII, n. 36, Chapter IX, n. 130.

⁸⁶ Robert of Torigni, ed. Delisle, ii. 109. Cf. C. Baur, *S. Jean Chrysostome*, p. 62.

⁸⁷ Savigny, iv. 401; *supra*, Chapter VIII, n. 36, where a version of the Psalter is also mentioned.

⁸⁸ Preface in Martène and Durand, i. 827; preface and text, ed. C. Burkhard, Vienna programmes, 1891-1902; on the MSS. see Diels, Berlin *Abhandlungen*, 1906, pp. 67 f.

⁸⁹ Commentary of St. Paul, inferred from the sepulchral inscription; Athanasius, *De Fide*, conjectured by Bandini, *Catalogus*, iv. 455; St. Basil on Genesis (*ibid.*, iv. 437; *Codices Urbinates Latini*, i. 78); Chrysostom on Acts, R. Sabbadini, *Le scoperte dei codici: nuove ricerche* (Florence, 1914), p. 264; work on meteorology announced in preface to Nemesisius.

⁹⁰ Martène and Durand, i. 817.

⁹¹ Ghellinck, *loc. cit.*; G. Mercati, *Note di letteratura biblica* (Rome, 1901), pp. 141-144.

great influence on the scholastics, the exegetes, the mystics, and the orators of the Middle Ages.”⁹² In medicine, Burgundio’s name is attached to the Latin versions of ten works of Galen:⁹³ *De sectis medicorum*, dedicated in 1185 to ‘King Henry,’ doubtless the newly knighted son of the emperor, the future Henry VI,⁹⁴ *De temperamentis*,⁹⁵ *De virtutibus naturalibus*,⁹⁶ *De sanitate tuenda*,⁹⁷ *De differentiis februm*,⁹⁸ *De locis affectis*,⁹⁹ *De compendiositate pulsus*,¹⁰⁰ *De differentiis pulsuum*,¹⁰¹ *De crisis*,¹⁰² and *Therapeutica (Methodi medendi)*;¹⁰³ while his translation of the *Aphorisms* of Hippocrates is cited in the thirteenth century as preferable to

⁹² Mercati, p. 142. His Chrysostom is cited as late as Poggio; *Sitzungsberichte* of the Vienna Academy, lxi. 409.

⁹³ The elaborate catalogue of Greek MSS. and translations of Galen published by H. Diels, “Die Handschriften der antiken Aertzte,” in *Abhandlungen* of the Berlin Academy (1905), pt. i, pp. 58–150, does not ordinarily indicate the authorship of the Latin versions, which in many cases still remains to be investigated. Evidently some of Burgundio’s work was revised in the fourteenth century by Nicholas of Reggio and Peter of Abano. For Nicholas see F. Lo Parco, “Niccolò da Reggio,” in *Atti della R. Accademia di Archeologia di Napoli*, n. s., ii, pt. 2, pp. 241–317; for Peter, Thorndike, ii, ch. 70. There may be some confusion with Johannes de Burgundia, better known as Sir John Mandeville, to whom is ascribed a treatise *De morbo epidemie* (e. g., Trinity College, Cambridge, MS. 1102, f. 53, MS. 1144, f. 110 v; Caius College, MS. 336, f. 114 v); see Mrs. Singer in *Proceedings of the Royal Society of Medicine*, ix. 162–173 (1916); and Mrs. Singer and Levy, in *Annals of Medical History*, i. 395–411 (1918).

⁹⁴ ‘Translatio greca est Burgundionis.’ Bibliothèque Nationale, MS. Lat. 6865, f. 81; Diels, p. 60. ‘De greco in latinum domino Henrico regi a Burgundione iudice Pisano anno incarnationis M.C.LXXXV. fideliter translatus’: MS. Montpellier 18, f. 95, where the *Archiv für die Geschichte der Medizin* (ii. 16) has incorrectly 1184.

⁹⁵ ‘Explicit liber Galieni de complexionibus translatus a Burgundione cive Pisano secundum novam translationem.’ Vatican, MS. Barberini Lat. 179, f. 14 v; MS. unknown to Diels, p. 64.

⁹⁶ Prague, Public Library, MS. 1404; not in Diels, p. 66.

⁹⁷ Diels, p. 75; Lo Parco, “Niccolò da Reggio,” pp. 282 ff.

⁹⁸ Diels, p. 80.

⁹⁹ ‘Explicit liber Galieni de interioribus secundum novam translationem Burgundii.’ Vatican, MS. Barb. Lat. 179, f. 36 v; MS. not in Diels, p. 85.

¹⁰⁰ ‘Finis libri qui est de compendio pulsus a Burgundione iudice cive Pisano de greco in latinum translatus.’ Bibliothèque Nationale, MS. Lat. 15460, f. 111 v; MS. not in Diels, p. 86.

¹⁰¹ Diels, p. 87.

¹⁰² Munich, Cod. Lat. 35; Diels, p. 90.

¹⁰³ ‘Expletus est liber tarapeutice cum additionibus magistri Petri de Ebano que deficiunt ex translatione Burgundionis civis Pisani.’ Vatican, MS. Barb. Lat. 178, f. 44 v; not in Diels, p. 92. Cf. G. Valentini, *Bibliotheca manuscriptorum ad S. Marci Venetiarum*, v. 79, and MS. Madrid 1978 (L. 60), f. 45 v.

that from the Arabic.¹⁰⁴ In a quite different field, he turned into Latin a treatise on the culture of the vine,¹⁰⁵ doubtless for the practical benefit of his native Tuscany, just as a Strasburg scholar of the sixteenth century sought to help the vineyards of the Rhine by translating extracts from the same *Geoponica*.¹⁰⁶ Still another scientific work is promised in the preface to Nemesius, an account namely of the heavens, winds, storms, earthquakes, and waters, and why the sea is salt — the content of Aristotle's *Meteorology* and more, though hardly this work itself, a promise which he may not have carried out. As a lawyer, too, he had opportunity to apply his knowledge of Greek to translating the Greek quotations in the *Digest*,¹⁰⁷ for which he appears to have used the text of the famous Pisan manuscript. He is freely credited with the Latin version by the glossators of the thirteenth century, and, as in the case of his theological and medical translations, the results of his work passed into the general tradition of the later Middle Ages.

With Burgundio we have passed far into the second half of the twelfth century and well beyond the times of Anselm of Havelberg. In approaching the Constantinople of this period we may well begin with another emissary of Frederick Barbarossa, apparently also a German, who visited the Greek capital in 1179 and shortly before. Let us start with his preface, as preserved in a contemporary codex of the University of Cambridge:¹⁰⁸

¹⁰⁴ Puccinotti, *Storia della medicina* (Leghorn, 1850), ii, 2, p. 290; Neuburger, *Geschichte der Medizin* (Stuttgart, 1906), ii, 1, p. 375. As cited by Diels, pp. 14-16, the Latin MSS. do not mention Burgundio.

¹⁰⁵ Edited by Buonamici, in *Annali delle università toscane*, xxviii (1908). Incomplete MS. also in the Ambrosian, MS. C. 10. sup., f. 118 v; also formerly at Erfurt (W. Schum, *Beschreibendes Verzeichniss der Amplonianischen Handschriften-Sammlung*, p. 802) and at Peterhouse, Cambridge (James, *Catalogue*, p. 11).

¹⁰⁶ *Serapeum*, xvii. 287 ff.

¹⁰⁷ Savigny, iv. 403-410; Mommsen, *Digesta*, editio maior (1876), i. 35*; H. Fitting, "Bernardus Cremonensis und die lateinische Uebersetzung des Griechischen in den Digesten," in Berlin *Sitzungsberichte*, 1894, ii. 813-820; N. Tamassia, "Per la storia dell' Autentico," in *Atti del R. Istituto Veneto*, lvi. 607-610 (1898). I agree with Savigny that there is no evidence that Burgundio translated the *Novels*, and that the reference to them in the preface to his translation of Chrysostom's St. John (see Chapter VIII, n. 36) shows that Burgundio accepted the extant version as a literal translation made at Justinian's order.

¹⁰⁸ MS. II. iv. 27, ff. 129-130 v.

Incipit liber de diversitate nature et persone proprietatumque personalium non tam Latinorum quam ex Grecorum auctoritatibus extractus.

Circumspicienti mihi quanta sit in humanis studiis varietas, in varietate dissensio, in dissensione contradictio, in contradictione obstinatio, inutile duxi causis horum investigandis operam dare, cum manifestum sit ex variis animorum affectionibus studiorum evenire varietatem, ex errore ignorantie dissensionem, ex tumore iactantie contradictionem, ex conatu imprudentie obstinationem. Quorum et primum et secundum est humanum, tertium ceca temeritate, quarta pertinaci contumacia plenum. Ideoque duobus in prioribus facilis est recursio, in tercio difficilis revocatio, in quarto irrevocabilis exorbitatio. In illis lapsus ex simplicitate miserabilis venia meretur, in istis ex perversitate dampnabilis in perniciem precipitatur. Considerans igitur a nostris studiis multos dissentire scolis plerosque contradicere et inpetulantie sue obsequium aliquos arroganter illudere, obstupui vehementer admirans unde vel illi vel nos in tantam impericij coruissemus insaniam quod, ut taceam de philosophicis opinionibus, circa theologie secreta tam inextricabilem non modo pateremur sed et excitaremus discordiam. Quam ob rem beatissime divinitati, in qua omnes thesauri sapientie consistunt et in mortalia pectora pro sua bonitate dividuntur, supplicari cepi ut viam veritatis mihi panderet et, si labi ex simplicitate contingeret, ex perversitate maligni sensus precipitari in perniciem non permetteret. Et quoniam ex Grecorum fontibus omnes Latinorum discipline proflexerunt, precibus meis adieci ut eius opitulante gratia, si quo modo fieri posset, per auctoritates irrefragabiles sapientiam Grece nostrarum dissensionum decisionem aliquando consequi mererer.

Hoc ineffabiliter estuans desiderio forte legatione Frederici gloriosissimi Romanorum imperatoris functus ad Manuelem Constantinopolitanum basileon regum orientalium potentissimum, hilariter in Illiricum et avide viam nullis laboribus et periculis meis inviam arripui. Consistens ergo in urbe regia priori legatione mense uno et diebus .vii. tempore scismatis, posteriori vero mensibus duobus tempore pacis anno quo Lateranense concilium in vere celebratum fuit, priscorum sanctorum Grece doctorum interpretante¹⁰⁰ Ugone Etheriano litteris grecis et latinis peritissimo, diu desideratam propositi mei letus accepi consummationem. Libellum secundum questiones in priori legatione a me propositas de diversitate nature et persone in posteriori dedit magni Basilii et Gregorii Nazanzeni aliorumque sanctorum auctoritatibus fulcitum, quem non modo ad meas preces sed et viri eloquentissimi Petri scolastici in florentissimo Austrie oppido de voluminibus Grecorum cum multa diligentia et cautela collegit. Preterea librum de immortali Deo addidit quem contra modernorum Grecorum opinionem de Spiritus Sancti processione de Patre et Filio compositum et antiquorum Grece doctorum scriptis communitum Alexandro pape transmisit, in quo personalium proprietatum et personarum essentieque diversitatem aptissimis beatorum episcoporum olim in Grecia theologizantium documentis declaravit. Qui cum et ipso confitente audivi Alberici cuiusdam in dialecticis fuisset auditor in Francia aliorumque a studiis nostris in theologia dissidentium viam pub-

¹⁰⁰ *interprete?*

licam trivisset, prefatorum virorum et aliorum clarissimorum Grecię doctorum sanctitate coactus est in latinum transferre sermonem, unde suam propriam quam de Gallia et Italia in Achaiam detulerat convinceret opinionem.

Accepta hec ab illo munera super aurum et topazion preciosa velut opes Cresi amplexatus sum. Cumque reversus in Germaniam ad Fredericum victoriosissimum Romani imperii principem Petro venerabili Tusculano episcopo tunc ibidem legatione sedis apostolicę fungenti apportatum libellorum meorum thesaurum demonstrassem ipseque sanctissimas illorum sententias diligenter ruminasset, admiratus plane fuit tantam in Gisilberto Pictaviensi episcopo sapientiam quod cum Grecorum volumina tanquam lingue eorum ignarus nunquam legisset, in illorum tamen intellectu tam scriptis quam dictis totus fuisset, statimque illos transcribi iussit. Latebat tamen eum quod beati Theoderiti et Sophronii scripta in latinum translata sepe revolvisset cum aliorum libris sive Grecorum sive Latinorum et maxime Athanasii et Hylarii, quorum suffragiis in concilio Remensi coram papa Eugenio contra suorum emulorum oblocutiones usus fuit cum gloria. Gratiā ergo quantas potero pietati divine agere non cessabo quę longis suspiriis et sollicitudini meę finem hunc facere dignata est, ut iam cum Cirillo Alexandrino sentire debeam et Iohanne Damasceno non idem esse personam et naturam, cumque magno Basilio et Gregorio theologo non idem esse personales proprietates personas et essentiam. Quod quidem supranominatus Pictaviensis episcopus ab antecessore suo Hylario non discordans in expositione Boetii de Trinitate evidenter asseruit, quibus tamen auctoribus uteretur non declaravit, exercitatis divinarum scripturarum lectoribus laudem horum inveniendorum relinquens. Quos ad investigandorum illorum studium et amorem invitat dum in operis sui prologo testatur diligentibus ipsarum rimatoribus posse videri ea que dixit sua furta potius esse quam inventa.

Denique quia Latinos latet quanta evidentiā de his rebus Grecorum loquatur sapientiā, opere precium duxi in publicas aures proferre quod ab orthodoxis doctoribus eorum divina opitulatione percepi, quatinus per illos pateat et a veritatis tramite eum non exorbitasse et emulos suos in ignorantię nebulis aberrasse frustra in eius declinatione laborasse quem summis et inconcussis Grecię columnis constat suffultum fuisse. Sed sicut sanctus Hylarius precatur, postulare presumo ut quisquis hec legenda et cognoscenda suscepit modum sibi atque mihi patientie fidelis indulgeat et usque ad absolutionem universa percenseat. Iniquum enim est non compta usque ad finem ratione dictorum preiudicatam sententiam ex unciiis eorum quorum adhuc causa ignoretur afferre, cum non de inchoatis ad cognoscendum sed de absolutis ad cognitionem sit iudicandum. Est etenim michi non de piis lectoribus metus ac benignis auditoribus sed de quibusdam nimium apud se cautis et prudentibus non intelligentibus per beatum apostolum sibi ne superbe saperet preceptum, quos vereor nolle omnia ea quorum absolutio a me in consummatione erit prestanda cognoscere dum verum intelligere ex his que absolventur evitant tanquam inclementes et iniqui aliorum dictorum iudices atque consueti servare sola ea dogmata non que rationabiliter didicerunt sed que ex consuetudine tenuerunt. Quorum plurima turba est non considerantium quid vere vel convenienter sed quid

ad aurium suorum pruritus sibilatur. Quam ob rem antequam attingam propositum, quoniam expedit quid ad officium spectet de rebus divinis disserentium diffinire atque distinguere non sit lectori tediosum.

The purpose of this treatise is thus fairly clear, not the usual controversy with the Greeks, but to find in orthodox Greek theologians support for the doctrines of the author's own school in relation to the Trinity. He begins with a discussion of the type of men who should write on theology, and the manuscript breaks off in the midst of a discussion of substance and essence.¹¹⁰ Then comes a treatise *De ignorantia* of a different sort.¹¹¹ The *De diversitate nature* is, however, preceded in this codex by a *Liber de homoysyon et homoeysion*¹¹² which is in the same style and may well be by the same author.

The date of the *Liber de diversitate* can be fixed in the first instance by its references to the schism which ended in 1177 and to the Lateran council of March, 1179. No mission from Barbarossa to Constantinople in the latter year is mentioned by the modern students of their relations, yet George of Corfu at this time represented Manuel in Italy,¹¹³ so that diplomatic negotiations were still going on. The meeting with Peter of Pavia, cardinal bishop of Tusculum from 1179 to 1182, took place in 1180, when this cardinal is known to have been with the emperor 18 March at Constance,¹¹⁴ having apparently passed through Carinthia on his way.¹¹⁵ The identity of the author does not appear, nor does that of the Austrian *scolasticus* Peter who accompanied him. Anselm

¹¹⁰ F. 130 v: 'Ad officium theologi spectat rerum veritatem et verba congrua observare. Archana theologiæ investigare volenti . . . maneat quicquid eternaliter existit' (f. 176 v).

¹¹¹ Ff. 177-187: 'Quid ignorantia sit multi ignorant . . . delinquere venaliter dicitur.'

¹¹² Ff. 1-128 v: 'Sanctus Hylarius Pictavorum episcopus in libro de synodis . . .'

¹¹³ Baronius, *Annales*, ad an. 1178, nos. xiii-xvi; 1179, nos. x-xii; A. Mustoxidi, *Illustrazioni Corcirese* (Milan, 1811-14), ii. 181-184, and app.; cf. W. Norden, *Papsttum und Byzanz* (Berlin, 1903), pp. 112 f. The two bishops George of Corfu have not been wholly disentangled: Krumbacher, p. 770.

¹¹⁴ Stumpf, *Reichskanzler*, nos. 4314-16; Giesebrecht, *Deutsche Kaiserzeit* (1895), vi. 576.

¹¹⁵ *Archiv für Kunde oesterreichischer Geschichtsquellen*, xi. 320. Peter stayed in Germany until 1181: *Chronica regia Coloniensis*, ed. Waitz, p. 323; Delehaye, in *Revue des questions historiques*, xlix. 49-56 (1891).

of Havelberg, conjectured by the Cambridge *Catalogue*,¹¹⁶ is, of course, chronologically impossible, as he died in 1158.

Respecting western matters, the preface shows the author as an opponent of Albericus, perhaps the Albericus of Rheims who died in 1141.¹¹⁷ He appears also as a staunch supporter of Gilbert de la Porrée, recalling the favorable judgments of John of Salisbury and Otto of Freising. Our author is not the only Gilbertine who dabbled in Greek theology, for Paul Fournier has made known the anonymous author of a *Liber de vera philosophia*, written ca. 1180-90, apparently in southern France, who had visited Jerusalem and cites freely the Greek Fathers; he also cites the treatise of a Master A., canon of Valence, who had explored the libraries of Greece, as well as the West, for material in support of his thesis.¹¹⁸ Though ignorant of Greek, Gilbert had used Greek authorities in presenting his argument at the council of Rheims (1148). Further interest in the results of Greek studies is seen in the dedication to a Gilbert, apparently Gilbert de la Porrée, of the *Differentie* of a certain Guillelmus Corborensis, a series of etymologies *de pelago greci ydiomatis* which in alphabetical order explains to the Latin world the difference between similar roots like *alchos* and *archos*.¹¹⁹

As regards the East, our preface introduces us to Hugo Eterianus, the principal Latin at this time engaged in theological controversy with the Greeks.¹²⁰ A Pisan by birth, Hugo, as we here

¹¹⁶ iii. 464. ¹¹⁷ Grabmann, *Geschichte der scholastischen Methode*, ii. 138-140.

¹¹⁸ *Études sur Joachim de Flore* (Paris, 1909), pp. 51-78; cf. Grabmann, ii. 434-437. The Gilbertine *Sententiae* edited by Geyer (*Beiträge*, vii, no. 2-3) lack this Greek element. On Gilbert's use of Greek, see, however, Hofmeister in *Neues Archiv*, xxxvii. 693 (1912).

¹¹⁹ 'Quamquam non dubitem te, incordialis [*sic*] et intime Gilleberte, per incitamentum subtilis ingenii et de blandimento capacis memorie dictionum latinarum differentias vigilantissime cognovisse. . . . Alchos et archos differunt . . .' Wolfenbüttel, MS. Gud. lat. 326, f. 1; B. N., MS. lat. 7100, f. 32 v. I hope to notice more specially this and one or two other mediaeval glossaries overlooked by Loewe and Götz.

¹²⁰ Gradenigo, *Lettera intorno agli Italiani che seppero di greco*, ed. Calogierà, pp. 50-55; [Fabroni], *Memorie di più uomini illustri pisani* (Pisa, 1790), ii. 59-68, iv. 151-153; Fabricius-Harles, *Bibliotheca Graeca*, viii. 563, xi. 483; Fabricius, *Bibliotheca mediae Latinitatis*, iii. 292 (ed. 1754); G. Müller, *Documenti sulle relazioni delle città toscane coll' Oriente*, pp. 384 f.; Hergenröther, *Photius*, iii. 175-177, 814 f., 833-837.

learn, had studied dialectic in France with Albericus and others before going to Constantinople, where his theological activity has long been known. His *De sancto et immortalī Deo*, here mentioned, was finished in 1177, when Alexander III acknowledged its receipt.¹²¹ He had also written, before 1173, a *Liber de anima corpore iam exulta*, or *De regressu animarum ab inferis*, at the request of the Pisan clergy.¹²² Other evidence of his activity is found in a lost treatise *De Filii hominis minoritate ad Patrem Deum* mentioned by his brother Leo;¹²³ in a set of extracts from his works containing accusations of all kinds against the Greeks;¹²⁴ and in an unpublished dispute with Nicholas of Methone preserved in Greek at Brescia.¹²⁵ He was obviously fitted to collect and interpret material for our author's purpose; indeed his mastery of Greek theology has been recognized.¹²⁶ From his first dated appearance in 1166¹²⁷ down to his death in 1182, Hugo kept up his controversies, and his vigorous advocacy of Latin doctrine against the Greeks won him commendation from Alexander III¹²⁸ and,

¹²¹ Jaffé-Löwenfeld, *Regesta*, no. 12957; Baronius, *Annales*, xix. 512. The treatise, also known as *De heresibus Grecorum* and *De processione Spiritus Sancti*, will be found in Migne, ccii. 227-396. MSS. are common, e. g., Vatican, Codd, Vat. lat. 820, 821, Urb. lat. 106; Laurentian, MS. xxiii. dext. 3 (Bandini, iv. 631); Assisi, MS. 90, f. 53 (Mazzatinti, *Inventari*, iv. 38); Subiaco, MS. 265 (Mazzatinti, i. 210); B. N., MS. Lat. 2948; Troyes, MS. 844; Cambridge, Corpus Christi College, MS. 207. The *De heresibus* was also issued in Greek; for a reply cf. *B. Z.*, iv. 370.

¹²² Migne, ccii. 167-226. There is a copy of ca. 1200 in the Archives of the Crown of Aragon at Barcelona, MS. Ripoll 204, ff. 106-192. The date is fixed by the mention of Albert as consul.

¹²³ See his preface printed below, p. 217.

¹²⁴ *Maxima bibliotheca patrum* (Lyons, 1677), xxvii. 608 ff. Cf. Hergenröther, iii. 175 ff., 833 ff.

¹²⁵ Martini, *Catalogo dei MSS. greci*, i. 251; cf. *B. Z.*, vi. 412.

¹²⁶ Hergenröther, iii. 814 f.

¹²⁷ See his letter to the consuls of Pisa in Müller, *Documenti*, no. 10, dated 1166 by the editor, although the text of the epitaph there cited clearly gives 1176. That Hugo was at Constantinople by 1166 is otherwise known: see below, p. 216, the preface of Leo here printed, and Hugo's reference to his relations with the cardinals who came from Rome in that year (Migne, *Patrologia Latina*, ccii. 233). In the letter to the Pisans Hugo says that his theological opinions had already made him unpopular, and the disputes with Nicholas of Methone doubtless fall before this year.

¹²⁸ Jaffé-Löwenfeld, no. 12957.

just before his death, a cardinal's hat from Lucius III.¹²⁹ Though he does not appear with any official title, he was in relations with the Greek emperor and on one occasion accompanied him into Cappadocia and the Turkish territory.¹³⁰

Closely associated with Hugo, though in a different field of translation, was his brother Leo, generally known as Leo Tuscus, who was assisted further by their nephew Fabricius. Leo, already *invicti principis egregius interpres* in 1166,¹³¹ is in 1182 still *imperialium epistolarum interpres*,¹³² and can in the meantime be traced in Manuel's service during the Asiatic campaigns, as we learn in general terms from Hugo's *De heresibus*¹³³ and more definitely from the preface printed below. Besides assisting Hugo in his literary labors,¹³⁴ Leo executed two translations from the Greek. One, a version of the mass of St. Chrysostom,¹³⁵ was made at the request of a recent visitor to Constantinople, the noble Rainaldus de Monte Catano, to whom it is dedicated, subject to the criticism of

frater et preceptor meus Vgo Eterianus sua gravitate gravior, nam is Grecorum loquela perplexa internodia olorum evincentia melos verborumque murmura, que pene Maronis pectus fatigarent ac Ciceronis, intrepida excussione¹³⁶ inspectis narrationum radicibus mirifice discriminat.

¹²⁹ *Ibid.*, no. 14712.

¹³⁰ 'Quod propriis oculis imperatorem sequendo per Cappadociam Persarumque regiones intuitus sum': *Bibliotheca patrum*, xxvii. 609.

¹³¹ Müller, no. 10. On the date see n. 127. Cf. Migne, ccii. 167 'imperialis aule interpretis egregii.'

¹³² Müller, no. 21.

¹³³ Migne, ccii. 274.

¹³⁴ 'Qui est ingenii mei acumen huiusque suscepti laboris incentivum,' says Hugh: Migne, ccii. 274.

¹³⁵ It is printed, with the preface, in Claudius de Saintes, *Liturgiae sive Missae sanctorum patrum* (Antwerp, 1562), f. 49; cf. Swainson, *The Greek Liturgies*, pp. 100, 144. There is a copy in the Bibliothèque Nationale, MS. Lat. 1002, f. 1: 'Magistri Leonis Tusci prologus ad factam Grecorum missam ab eo verbis Latinis divulgatam ad quendam Raynaldum. Cum venisses Constantinopolim . . .' Engdahl, *Beiträge zur Kenntnis der byzantinischen Liturgie*, in Bonwetsch and Seeberg's *Neue Studien*, v. 35, 84 (1908), has used only an incomplete Karlsruhe MS. of the translation which does not contain the preface. Leo's translation is mentioned by Nicholas of Otranto in the preface to his translation of the mass of St. Basil: Engdahl, p. 43; MS. Lat. 1002, f. 22 v.

¹³⁶ So Allatius, who cites this passage, *De ecclesiae consensione*, p. 654. MS. Lat. 1002 has *exursione*, the printed text *excursione*.

The other of Leo's translations is a version of the *Oneirocriticon* of Ahmed ben Sirin, important both for the vernacular renderings which were based upon it in the sixteenth century and for the establishment of the Greek text, of which it represents a tradition older than the extant manuscripts.¹³⁷ The preface, which is addressed to Hugo, and exhibits, like the preface to the version of the mass, marked resemblance of style to his writings, sheds further light on Hugo's activity, since it shows him engaged in the controversy over the subordination of the Son to the Father which was started by Demetrius of Lampe, and, if we are to believe Leo, exerting an influence upon the emperor's decision. The mention of Manuel's campaign against the Turks in Bithynia and Lycaonia offers a means of dating the work.¹³⁸ The campaign of 1146 being obviously too early, opinion seems to have decided for that of 1160-61; at least all scholars who mention the version, from Rigault and Casiri to Steinschneider, Krumbacher, and Drexel, though without discussing the question, give 1160 as the date. This seems to me untenable, partly because the expedition of this year can scarcely be said to have reached Lycaonia, but chiefly because the Demetrian controversy began only in 1160, and the imperial decree which put an end to it (*augustalis clementie decretum*) is of the year 1166.¹³⁹ All of this is already well in the past (*ex eo igitur tempore*), and the emperor engaged in no further Turkish campaigns except the unsuccessful enterprise of 1176. Now we know from Hugo's *De heresibus*, completed in 1177,¹⁴⁰ that its composition was interrupted by Leo's absence in Asia Minor with the emperor,¹⁴¹ and it is accordingly to 1176 that the

¹³⁷ See Steinschneider, "Ibn Shahin und Ibn Sirin," in *Zeitschrift der deutschen morgenländischen Gesellschaft*, xvii. 227-244; and *E. U.*, nos. 77, 130; Krumbacher, p. 630; Drexel, *Achmet's Traumbuch (Einleitung und Probe eines kritischen Textes)*, Munich dissertation, 1909, who gives an account of the manuscripts preliminary to the preparation of a critical edition. None of these writers appears to have examined the preface. See now Thorndike, ch. 50.

¹³⁸ On these campaigns see Chalandon, *Les Comnènes*, ii. 247-257, 456-459, 503-513.

¹³⁹ Chalandon, ii. 644-651.

¹⁴⁰ As seen from the date of Alexander III's letter acknowledging it: Migne, ccii. 227; Jaffé-Löwenfeld, no. 12957.

¹⁴¹ Migne, ccii. 274.

translation of Ahmed should be assigned. The following text of the preface is from MS. 2917 of Wolfenbüttel:¹⁴²

Ad Hugonem Eterianum doctorem suum et utraque origine fratrem Leo Tuscus imperatoriarum epistolarum interpres de sompniis et oraculis

Quamquam, optime preceptor, invictum imperatorem Manuel per fines sequar Bithinie Licaonieque fugantem Persas flexipedum hederarum¹⁴³ complectentes vestigia, tamen memorandi non sum oblitus sompni a te visi quod dictum inexpugnabilem virum eneo in equo supra columpnam¹⁴⁴ quam Traces dicunt Augustiana Bizancii sito nobiliter sedere conspiciaris, eodem autem in loco doctissimis quibusdam astantibus Latinis Romana oratione cum in quodam legeret libello interpellanti tibi soli favorem prestitisse visus est. Latuit tunc utrumque nostrum ea quidem quid portenderet visio, at vero eiusmodi oraculum editus per te de Filii hominis minoritate ad Patrem Deum libellus tempore post revelavit sub tegumentis. Profecto eneus ille sonipes anima carens altissime sonantissimeque questionis erat que inter Grecos versabatur ventilatio, verbum scilicet Dei secundum quod incarnatum Patri equale prestans rationis veritatisque radicitus expers ut quadrupes nominatus. Solvit autem illam controversiam clamitante illo libello augustalis clemencie decretum paucis scandali fomento contra voluntatem illius relicto. Ex eo igitur tempore pectus sollicitudine percussi, sub corde ignitos versavi carbonem, cogitando utile esse si onirocriti Grecorum philosophis ariolanti loqui latine persuaderem enucleatim atque inoffensam perspicuitatem figmenti sompnialis tuo favore nostrorum Tuscorum desiderio breviter reserarem. Quos quidem fluctu percipio aspergi undiosiore ut irrigentur affatim efficianturque fecundiores, nam Seres, ut fertur, arbores suas undis aspergunt quando uberem lanuginem quam sericum creat admittere nituntur. Ceterum haut facile est in huiusmodi versari pelago cuius latitudo ad aures usque dehiscit non sponte remigem asciscens invalidum. Non solum enim subtilibus expositum investigationibus et illos repellit qui debilitate pedum serpunt, ut antipodes, et eos qui non movent linguas, ut pleraque aquatiliū, set neque monoxilo se navigari lintre patitur. Quamobrem loquelam imperatoriarum interpretationibus apicum obsequentem per excubias interdum huic translationi non irrita¹⁴⁵ spe addixi, totum opus sapientie tue dicaturus iudicio, mei quidem auctoris, tui vero probatoris equilibre pensans meritum. Nam tuum examen cognoscere¹⁴⁶ non sum ambi-

¹⁴² Ff. 1-20 (saec. xiii). Also in the Bodleian, Digby MS. 103, ff. 59-127 v, saec. xiii; modern copy in Ashmolean MS. 179. There is a copy of the fourteenth century in the British Museum, Harleian MS. 4025, ff. 8-78; another in the Biblioteca Casanatense, MS. C. vi, 5 (1178); without the preface the translation is found in Vat. MS. Lat. 4094, ff. 1-32 v. Thorndike (ii. 292) also notes B. N. MS. Lat. 7337, p. 141; and Vienna, MS. 5221.

¹⁴³ Ovid, *Metamorphoses*, 10, 99.

¹⁴⁴ The statue of Justinian called Augusteion, in the place of the same name. See Du Cange, *Constantinopolis Christiana*, bk. i, c. 24; Unger, *Quellen der byzantinischen Kunstgeschichte* (Vienna, 1878), pp. 137 ff.

¹⁴⁵ So the Digby MS. Wolfenbüttel: *unila*.

¹⁴⁶ MS. Digby: *discernere*.

guus quicquid arida exsanguisque poscit ratiocinatio. Desiderantissimus enim nepos Fabricius,¹⁴⁷ grecarum sciolus et ipse litterarum sompnialium figmentorum odoratus rosaria, scribendi assiduitate me a confluentibus elevat prestatque non mediocre adiumentum, atque idcirco neque nomen sine subiecto neque sine viribus erit edicio, Sidoneis Tirrenisque sagittis parum penetrabilis apparitura ut arbitror. Ergo quisquis nodosorum sompniorum fatigatur involucris, si per aliquod hic scriptorum absolvi postulet, caveat pretemptare plus nosse quam sat est, ne titulos depravet¹⁴⁸ Apollineae urbis ambagum rimis herbidisque sentibus. Ego autem tui solius utrarumque linguarum peritissimo examini volumen hoc subpono, ut in eo que arescunt ac caligant per te illustrata orbi demum succincta perfectione¹⁴⁹ vulgentur.

Another Italian writer appears at Constantinople in this period in the person of a certain Pascalis Romanus, who also shared the interest in signs and wonders which prevailed at Manuel's court. His *Liber thesauri occulti*, with an introduction citing Aristotle's *De naturis animalium*, Hippocrates, and 'Cato noster,' is a dream-book compiled at Constantinople in 1165, if we may believe the author, from Latin, Greek, and Oriental sources:¹⁵⁰

*Incipit liber thesauri occulti a Pascale Romano editus Constantinopolis
anno mundi .vi. dc. lxxiiii. anno Christi .m. c. lxx.*

Tesaurus occultus requiescit in corde sapientis et ideo desiderabilis, set in thesauro occulto et in sapiencia abscondita nulla pene utilitas, ergo revelanda sunt abscondita et patefacienda que sunt occulta. Quare de plurimis ignotis et occultis unius tantummodo elegi tegumentum aptamque revelacionem describere, videlicet sompnii secundum genus et species eius quo res profunda et fere inscrutabilis ad summum patenti ordine distinguatur. Eius namque doctrina philosophis et doctis viris valde necessaria est, ne forte cum exquisiti fuerint muti vel fallaces inveniantur . . . (f. 43) Collectus autem est liber iste ex divina et humana scriptura tam ex usu experimenti quam ex ratione rei de Latinis et Grecis et Caldaicis et Persis et Pharaonis et Nabugodonosor annalibus in quibus multipharie sompnia eorum sunt exposita. . . . Non itaque longitudo prohemii nos amplius protrahat nec responsio aliqua impediatur, set omni cura seposita succincte ad thesaurum desiderabilem aperiendum properemus.

Sompnium itaque est figura quam ymaginatur dormiens . . .

¹⁴⁷ Fabricius was a member of the papal household in 1182, when he was sent to Constantinople by Lucius III: Müller, no. 21. Another learned friend, Caciareda, is mentioned in the *De heresibus* (Migne, ccii. 333 f.).

¹⁴⁸ Wolfenbüttel: *degravet*.

¹⁴⁹ Digby: *profusione*.

¹⁵⁰ Digby MS. 103, ff. 41-58 v, preceding Leo's *Oncirocriticon*. The first of the two books of the treatise is also in the British Museum, Harleian MS. 4025, f. 1. See also B. N., MS. lat. 16610, f. 2 v (Thorndike, ii. 297).

Paschal the Roman can also be almost certainly identified with the translator from the Greek, in 1169, of the curious book known as Kiranides. This strange compend of ancient lore respecting the virtues of animals, stones, and plants is well known in the Greek, from which it has been edited and translated by Mély and Ruelle,¹⁵¹ but the Latin version has not been specially studied. At least five Latin manuscripts are known,¹⁵² all with the following preface, showing that the translation was made by request of some Latin: ¹⁵³

In Christi nomine amen incipit liber Kirannis Ypocratonis filie.¹⁵⁴ Eruditissimo domino magistro ¹⁵⁵ Ka. Pa. infimus clericus. Admiror et commendo sagacitatem tue prudentie ¹⁵⁶ que cum docta et experta sit in hiis que super naturam nostri circuli sunt et que iam quasi ultra .vii. celos contemplando penetravit, modo etiam infima experimenta terrena conspiciere non dedignatur. Rogasti enim me ut hunc librum medicinalem de greco eloquio in latinum sermonem ¹⁵⁷ transferrem. Res quidem facilis fuit ad dicendum sed difficilis ad perficiendum, verum caritativo amore tuoque beneficio permotus obedire non renui. Et quoniam diverse sunt translationes de agarenica lingua in grecam,¹⁵⁸ ut nosti, librum grecum quem mihi dedisti studiose et fideliter per omnia emulatus sum, ipsos etiam duos prologos quamvis asperos velud de antiquissimis titulis abstractos preterire nolui, non verba, que de sterilitate barbarica sunt, sed sensum utilitatis recolligendo. Si quid ergo reperieris alienatum,¹⁵⁹ non infidelitati vel malicie sed communi errori deputetur.¹⁶⁰ Nullus enim tam sapiens qui absque titulo

¹⁵¹ F. de Mély, *Les lapidaires de l'antiquité et du moyen âge*, ii, iii (Paris, 1898-1902). For discussions of these confused texts, see P. Tannery, in *Revue des études grecques*, xvii. 335-349; Cumont, in *Bulletin de la Société des antiquaires de France*, 1919, pp. 175-181; R. Ganszyniec, in *Byzantinisch-Neugriechische Jahrbücher*, i. 353-367, ii. 56-65, 445-452 (1920-21); Thorndike, ii, ch. 46.

¹⁵² Vatican, MS. Reg. lat. 773, f. 21 (ca. 1300); MS. Vat. lat. 4864, f. 18 (in a humanist hand of ca. 1400); MS. Pal. lat. 1273, f. 121, in a northern hand of the fifteenth century ('translatum a magistro Gerardo Cremonensi de arabico in latinum'); Montpellier, Ecole de Médecine, MS. 277, f. 41 (saec. xv); Bodleian, MS. Ashmole 1471, f. 143 v (saec. xiv). There are two early editions (Leipzig, 1638; Frankfort, 1681) and a French translation (Arsenal, MS. 2872, ff. 38-57). There is a fragment at Wolfenbüttel, MS. 1014, f. 102. The fragment 'De virtute aquile' at Merton College (MS. 324, f. 142), also in Bodleian, E Musaeo MS. 219, f. 138 v, translated by Willelmus Anglicus, is, as Thorndike (ii. 93, 487) conjectured, from Kiranides (3, 1).

¹⁵³ The text is here based on the best two of the foregoing manuscripts, Reg. lat. 773 (A) and Montpellier 277 (B).

¹⁵⁴ Title not in A.

¹⁵⁷ Om. B.

¹⁵⁹ ab communi sensu, A.

¹⁵⁶ Om. B.

¹⁵⁸ Om. A.

¹⁶⁰ depulatur, A.

¹⁵⁵ evidentie, A.

inscientie reperitur.¹⁶¹ Volo tamen te scire ¹⁶² quod est apud Grecos quidam liber Alexandri magni de .vii. herbis .vii. planetarum, et alter qui dicitur Thessali misterium ad Hermem, id est Mercurium, de ¹⁶³ .xii. herbis .xii. signis attributis et de .vii. aliis herbis per .vii. alias stellas, qui si forte pervenerint ad manus meas vel tuas, quia celestem dignitatem imitantur, recte ¹⁶⁴ huic operi preponentur. Transfertur itaque liber iste Constanti-nopoli Manuele imperante ¹⁶⁵ anno mundi vi^m dclxxvii, anno Christi m. c. lxi. indictione secunda.¹⁶⁶

Liber phisicalium virtutum, compassionum, et curationum collectus ex libris duobus, ex primo videlicet Kirannidarum Kiranni regis Persarum et ex libro Apocrationis Alexandri ad propriam filiam. Habebat autem primus liber Kiranni sic sicut et supponemus: Dei donum magnum angelorum accipiens fuit Hermes trimegistus deus hominibus omnibus notus. . . .

Everything turns on the interpretation of 'Ka. Pa.' The author of the Montpellier catalogue ¹⁶⁷ read 'Ha. pa.,' which Pansier made into 'Ha[driano] Pa[pe],' though Pope Hadrian had died ten years before. The scribe of the Ashmolean manuscript extended the second word to 'Parrissen.,' which led Thorndike ¹⁶⁸ to make 'cancellario Parisiensi' out of the whole. MS. Pal. lat. 1273 has 'Ra. Pa.,' which Vat. 4864 makes into 'Raynaldo Parisino.' There can, however, be no doubt that 'Ka. Pa.' stood in the original text, and one would expect, as usual, the first to denote the addressee and the second the writer. Whoever may have been the 'Ka.' for whom the translator labored, no other 'Pa.' is known in Constantinople at this time, whereas Paschal the Roman we have found there four years earlier engaged on a similar task and using an exactly parallel form of date.¹⁶⁹ Moreover

¹⁶¹ *Nullus enim tam sapiens reperitur qui absque titulo inscientie sit, B.*

¹⁶² *volo te transsire, A.*

¹⁶³ From this point A is injured for the first half of eight lines.

¹⁶⁴ *certe, B.*

¹⁶⁵ *imperatore, B.*

¹⁶⁶ The year A.D. is faint in A. MS. Pal. lat. 1273 has the same date as A and B. Vat. lat. 4864 has 'anno Domini Ihesu Cristi milesimo c.lx. indictione ii^a, anno vero mundi dclxxvii.' Ashmole 1471 has: 'anno mundi anno Christi m^o cc^o.lxxx^o. alias m^o. c^o. lxi^o. indictione secunda.' B adds, 'Explicit epistola, incipit prologus.'

¹⁶⁷ *Catalogue des MSS. des départements*, old series, i. 395; Pansier, in *Archiv für die Geschichte der Medizin*, ii. 25.

¹⁶⁸ ii. 230. E. Meyer, *Geschichte der Botanik* (Königsberg, 1855), ii. 349 ff., followed by Cumont in *Revue de philologie*, 1918, p. 88, conjectured that the translator was Raymond Lull or one of his disciples.

¹⁶⁹ There may be some connection with the mission of two cardinals to Constantinople in 1169: Chalandon, *Les Comnènes*, ii. 566. Can 'Ka.' be the Caciareda of note 147?

the monogram PASGALIS stands at the head of the Palatine MS. 1273.

The translator of Kiranides knows of other works in Greek on the magical virtues of herbs and planets, which he even places before Kiranides itself. Latin versions of these appear in several manuscripts,¹⁷⁰ sometimes along with Kiranides,¹⁷¹ but with no indication of the translator, who was perhaps also Paschal the Roman.

Another Roman in the East appears in the Master Philip, friend and physician of Alexander III, who is sent with the letter of that Pope to Prester John 27 September 1177.¹⁷² Moreover, the well known letter of Prester John to Manuel purports to have been transmitted by Manuel to Frederick Barbarossa and to have been done into Latin by Christian, archbishop of Mainz,¹⁷³ Frederick's lieutenant in Italy, which would bring us around once more to the intellectual contacts between the two empires. But as this letter of Prester John is clearly a western fabrication, we here pass beyond the realm of historical fact into that outer penumbra of Greco-Latin literary relations which still awaits the explorer.

The interest in divination and astrology at the Byzantine court¹⁷⁴ was reflected in the contents of the imperial library, from which a brief catalogue has reached us of a score of occult works of restricted circulation.¹⁷⁵ How many such found their way westward through Greek manuscripts or Latin versions from the Greek, we do not know. One at least we have in the two books of the *De revolutionibus nativitatum* of abu Ma'ashar (Apomasar), of which a Latin version from the Greek, not later than the

¹⁷⁰ Thorndike, ii. 233 f., who does not mention the edition of the seven herbs and seven planets in Sathas, *Documents inédits relatifs à l'histoire de la Grèce au moyen âge*, vii, pp. lxxiii-lxxvii (from St. Mark's, Cod. gr. iv. 57, suppl.). See H. Haupt, in *Philologus*, xlviii. 371-374; Cumont, in *Revue de philologie*, 1918, pp. 85-108.

¹⁷¹ E. g., MS. Montpellier 277.

¹⁷² Jaffe-Löwenfeld, no. 12942.

¹⁷³ F. Zarncke, *Der Priester Johannes* (Leipzig, 1879); cf. Thorndike, ii, ch. 47.

¹⁷⁴ Cf. Krumbacher, p. 627; *Catalogus codicum astrologicorum Graecorum*, v, 1, pp. 106 ff.; Oeconomus, *La vie religieuse dans l'empire byzantin* (Paris, 1918), pp. 70-93.

¹⁷⁵ Edited from the Angelica MS. 29 in *Catalogus codd. astr.*, i. 83 f. Note also the *Almagest*: supra, Chapter IX.

thirteenth century, is preserved in several manuscripts.¹⁷⁶ The prophecy of the Erythraean Sibyl, we have seen, also purports to have been derived from a book in Manuel's library.¹⁷⁷ We touch this shadowy realm again in certain treatises on alchemy, where we find the name of the Emperor Manuel, joined in one instance to that of Frederick.¹⁷⁸

Surer ground is reached with the Latin treatise on ophthalmology compiled from Greek sources by a certain Zacharias who studied and practised at Constantinople in Manuel's reign, gaining there from a court physician, Theophilus, "for the love of God and money, knowledge which he could acquire from none of the Latins."¹⁷⁹

Other discoveries doubtless remain to be made in relation to the north-Italian translators. So far as their work has been recovered, it is largely concerned with theological material, both in the form of controversy between the two churches and in versions of earlier Greek writers, who, like John of Damascus, might thus come to exercise an important influence on the West. Logic and grammar also appear in the case of James of Venice and Moses of Bergamo, while medicine treads close on theology in the versions of Burgundio and reappears in Zacharias. Leo the Pisan and Paschal the Roman are important chiefly in relation to the occult. The mathematical and astronomical interests of the Sicilian school are strikingly absent.

¹⁷⁶ 'De revolutionibus nativitatum liber primus translatus de greco in latinum. Sole nativitatis tempore . . .': B. N., MS. lat. 7320^a (saec. xiii); Vatican, MS. Vat. lat. 5713, f. 61; MS. Pal. lat. 1406, f. 45. For the Greek original see C. Ruelle, in *Comptes-rendus de l'Académie des Inscriptions*, 1910, pp. 34-39; F. Boll, in Heidelberg *Sitzungsberichte*, 1912, no. 18.

A MS. of the Laurentian, MS. Strozzii 61 (saec. xii) contains an 'Ars astrologie translata de greco secundum Ptholomeum. Doctrinales scripturi libros . . .'

¹⁷⁷ Supra, Chapter IX, n. 76.

¹⁷⁸ J. Wood Brown, *Michael Scot*, pp. 83 f.

¹⁷⁹ "Magistri Zachariae tractatus de passionibus oculorum qui vocatur Sisi-lacera, id est Secreta secretorum," in P. Pansier, *Collectio ophthalmicorum veterum auctororum* (Paris, 1907), v. 59-94; cf. Neuburger, *Geschichte der Medizin*, ii, 1, pp. 314 f.

CHAPTER XI

VERSIONS OF ARISTOTLE'S POSTERIOR ANALYTICS¹

IN the intellectual history of the Middle Ages one of the most fundamental facts is the persistent and pervasive influence of the writings of Aristotle. Always considerable, this influence grew and spread as new groups of the master's works became available to the scholars of western Europe, and it can be measured and defined only as we can ascertain accurately the date, the character, and the diffusion of the different Latin versions of each portion of the Aristotelian *corpus*. In a general way it is well understood that the *Categories* and the *De interpretatione* were accessible throughout the Middle Ages in the translations of Boethius; that the other logical works were quite unknown to the earlier period and came to be used only in the second quarter of the twelfth century, whence they were called the *New Logic*; that the *Physics*, *Metaphysics*, and *Parva naturalia* reached the West about 1200; and that the *Rhetoric*, *Ethics*, and *Politics* make their appearance in the course of the next two generations.² There are, however, many obscure and doubtful points in this process, and the doubt and obscurity are greatest with reference to the period of the twelfth century. Thus we know nothing definite of the channels by which the *Metaphysics* suddenly reached Paris at the begin-

¹ Revised from *Harvard Studies in Classical Philology*, xxv. 87-105 (1914). For the resulting discussion see A. Hofmeister, in *Neues Archiv*, xl. 454-456 (1915); Baeumker, in *Philosophisches Jahrbuch*, xxviii. 320-326 (1915); Geyer, *ibid.*, xxx. 25-43 (1917).

² See in general Jourdain, *Recherches*; Baeumker, "Zur Reception des Aristoteles im lateinischen Mittelalter," in *Philosophisches Jahrbuch*, xxvii. 478-487 (1914); Grabmann, *Forschungen über die lateinischen Aristotelesübersetzungen des XIII. Jahrhunderts* (Beiträge, xvii, 1916); supplemented for the *Ethics* by Pelzer, *Revue néo-scholastique*, 1921, pp. 316-341, 378-400; and for the *Metaphysics* by F. Pelster in *Festsage Baeumker* (Münster, 1923), pp. 89-118. Brief accounts in Sandys, *History of Classical Scholarship*², i, especially pp. 527, 567-569, 587 f.; and P. Mandouret, *Siger de Brabant*² (Louvain, 1911), pp. 9-15. "La storia dell' aristotelismo è ancora da farsi," says Marchesi, *L'Etica Nicomachea nella tradizione latina medievale* (Messina, 1904), p. 1.

ning of the thirteenth century, and we are ignorant of the date and authorship of the two versions, one from the Greek and one from the Arabic, through which it was thereafter known. With regard to the *Physics*, it is still necessary, not only to determine the exact time when the version from the Arabic reached Latin Europe,³ but also to investigate the problem of possible earlier translations from the Greek. An incomplete copy in the Vatican which cannot be later than the very beginning of the thirteenth century establishes the existence of a version of the *De physico auditu* made from the Greek but differing from the Greco-Latin version later current,⁴ and there are traces of some acquaintance

³ In the translation of Gerard of Cremona; cf. the text in MS. Lat. VI, 37 of St. Mark's (Valentinelli, *Bibliotheca manuscripta*, v. 9): 'secundum translationem Gerardi.' On the dates when these treatises reached Paris, see Chapter XVIII; Mandonnet, *op. cit.*, pp. 13-15; Mingès, in *Archivum Franciscanum historicum*, vi. 17. It is dangerous to use catalogues of manuscripts as evidence of such dates. Thus MS. 221 of Avranches, containing the *Physics*, which is ascribed by Delisle to the twelfth century, is more probably of the thirteenth, as is clearly MS. 428 of the Biblioteca Antoniana at Padua. So MS. 421 of the Antoniana, containing the *Metaphysics* and likewise placed in the twelfth century by the printed catalogues, is not earlier than the fourteenth; cf. now Mingès, *loc. cit.*, p. 16, who puts the MS. earlier than I should. A copy of the *Meteorologica* in the Laurentian (MS. Strozzi 22), also attributed to the twelfth century, is plainly of the thirteenth. For similar mistakes with respect to manuscripts of the *New Logic*, see below, n. 36.

⁴ MS. Regina, 1855, ff. 88-94 v; cf. *Harvard Studies in Classical Philology*, xxiii. 164 (1912). Although my former attribution of this MS. to the twelfth century was confirmed by excellent palaeographical authority, further examination shows that it cannot with certainty be placed earlier than the opening years of the thirteenth century. I have found no other copy of this version, which begins as follows: '*Aristotilis physice acroaseos. A. Quoniam agnoscere et scire circa methodos omnes accidit quarum sunt principia vel causę vel elementa, ex eorum cognitione tunc enim unumquodque cognoscere putabimur cum causas agnoverimus primas et principia prima et usque ad elementa; palam quia et de natura scientię temptandum est diffinire primum quę circa principia sunt. Aptā vero a notioribus nobis via et manifestioribus ad manifestiora natura et notiora. Non enim eadem nobis nota et simpliciter. Ideoque hoc modo procedere et necesse de inmanifestioribus quidem natura nobis vero manifestioribus ad manifestiora natura et notiora. Sunt autem nobis primum aperta et manifesta confusa magis, posterius autem ex his fiunt nota elementa et principia dividunt ea. Quapropter ab universalibus ad singularia oportet progredi. . . . Ergo quia sunt principia et quę et quot numero determinatum sit nobis ita. Rursum aliud incoantes principium dicimus. Aristotilis physice acroaseos. A. explicit.*' Book ii begins as follows on f. 94, but breaks off abruptly on the verso: 'Entium alia quidem sunt natura alia causas propter alias. Natura vero dicimus esse animalia et eorum partes atque plantas ac alia corporum ut terram ignem et

with its contents in the twelfth century.⁵ Certainly the current rendering of the fourth book of the *Meteorologica* was made from the Greek by Henricus Aristippus in Sicily before 1162;⁶ there is evidence that the Greek text of the *De caelo* was known there in the same period;⁷ and further research may quite possibly carry back other works of which versions from the Greek are known in manuscripts of the thirteenth century.⁸

The place of the *New Logic* in the thought of the twelfth century is better known, but there are intricate and perplexing problems connected with it, and fresh evidence is much needed. The history of the *Posterior Analytics* offers the greatest difficulty, yet it cannot be considered apart from the other members of this group of treatises, and any new light which may be shed upon it will make correspondingly clear some points connected with the *Prior Analytics*, the *Topics*, and the *Elenchi*. Moreover, since it was considered the most advanced and the most difficult of these works, its diffusion and assimilation serve to measure the range and depth of Aristotelian studies throughout the period.

The reception of the *New Logic* was the privilege of the genera-

aerem atque aquam; hæc enim et similia natura dicimus esse. . . .’ Cf. Grabmann, *Forschungen*, pp. 173 f. For specimens of the current translations from the Greek and the Arabic, see Jourdain, pp. 405-407; for traces of the *Physics* in the twelfth century, Chapter V, nn. 58 ff. The version of MS. Reg. 1855 is probably of south-Italian or Sicilian origin, and should perhaps be connected with the occurrence of a Greek MS. of the first book of the *Physics* in the oldest catalogues of the papal library, the Greek part of which collection was probably derived from the library of the Sicilian kings. For the MS. see the catalogue of 1295 in *Archiv für Literatur- und Kirchengeschichte des Mittelalters*, i. 41, no. 442; and the catalogue of 1311 in Ehrle, *Historia Bibliothecae Romanorum Pontificum*, i. 97, no. 610. For the origin of the Greek MSS. of the papal library see Chapter IX, n. 35.

⁵ Supra, Chapter V.

⁶ Rose, in *Hermes*, i. 385. The explicit statement concerning the authors of the translation of the *Meteorologica* will also be found in MS. 1428, f. 171, and MS. 9726, f. 58 v, of the Biblioteca Nacional at Madrid.

⁷ Supra, Chapter IX, pp. 183, 191. Cf. Heiberg, in *Hermes*, xlv. 210; Mortet, in *B. E. C.*, lxxiv. 364.

⁸ See particularly Baeumker, *Die Stellung des Alfred von Sareshel*, in Munich *Sitzungsberichte*, 1913, no. 9, especially pp. 33 ff., where evidence is given of early translations of the *De anima* and the *Parva naturalia* from the Greek. Note the versions of the *Metaphysics*, *Ethics*, *De generatione*, and *De caelo* from the Greek in Bodleian MS. Selden supra 24, of the early thirteenth century.

tion living between ca. 1121 and 1158.⁹ When Abelard wrote his *Dialectic*, the Latin world knew none of the logical works of Aristotle except the *Categories* and the *De interpretatione*, but he elsewhere cites the *Sophistici Elenchi* and *Prior Analytics*.¹⁰ His contemporary Gilbert de la Porrée refers his readers to the *Prior Analytics*. Otto of Freising, a student at Paris ca. 1130 and in close touch with philosophical developments in France and Italy until his death in 1158, became acquainted with all parts of the *New Logic*, which he was the first to introduce into Germany. His master, Thierry of Chartres, who lived until 1155, or shortly before, but taught at Paris for some years before 1141,¹¹ reproduces the whole *Organum*, save only the *Posterior Analytics* and the second book of the *Priora*; while the *Posteriora*, cited in Sicily in the same period, comes to its own in the North in the analysis given by Thierry's pupil John of Salisbury in his *Metalogicus* in 1159. The later emergence of the *Posterior Analytics* does not necessarily indicate a reception distinct from the allied works, but is rather to be explained by its difficulty, *paucis ingeniis pervia*, and the corruption of the Latin text;¹² and it is altogether

⁹ On these questions see Prantl, *Geschichte der Logik im Abendlande*², ii. 98 ff.; Grabmann, *Geschichte der scholastischen Methode* (Freiburg, 1909-11), i. 149-151, ii. 66-81; Mandonnet, *Siger de Brabant*², pp. 9 f.; Schmidlin, "Die Philosophie Ottos von Freising," in *Philosophisches Jahrbuch*, xviii. 160-175 (1905); Hofmeister, "Studien zu Otto von Freising," in *Neues Archiv*, xxxvii, especially pp. 654-681 (1911); Webb, *Ioannis Saresberiensis Policraticus*, i, pp. xxiii-xxvii; A. Schneider, in *Beiträge*, xvii, no. 4, pp. 10-18 (1915); Grabmann, *Forschungen*, pp. 1 ff.

¹⁰ 'Aristotelis enim duos tantum, predicamentorum scilicet et Periermenias, libros usus adhuc Latinorum cognovit': Cousin, *Ouvrages inédits d'Abelard*, p. 228. See now Geyer, in *Philosophisches Jahrbuch*, xxx. 31-39, who is still vague on the chronology of Abelard's writings. The history of the *Analytics* in the earlier Middle Ages might appear in a new light if we could explain a passage in John the Scot which cites the *Analytics*, where the *Metaphysics* is probably meant. E. K. Rand, *Johannes Scottus* (Munich, 1906), pp. 6, 42.

¹¹ Cf. Poole, *E. H. R.*, xxxv. 338 f. (1920). I agree with Hofmeister in denying the force of the argument of Clerval (*Les écoles de Chartres*, p. 245) for dating the *Eptatheuchon* of Thierry before 1141. Geyer does not take up Thierry, though he eliminates Adam du Petit-pont from the discussion.

¹² John of Salisbury, *Metalogicus*, 4, 6, in Migne, *Patrologia*, cxcix. 919: 'Posteriorum vero Analyticorum subtilis quidem scientia est et paucis ingeniis pervia, quod quidem ex causis pluribus evenire perspicuum est. Continet enim artem demonstrandi, que pre ceteris rationibus disserendi ardua est. Deinde hec utentium raritate iam fere in desuetudinem abiit, eo quod demonstrationis usus vix apud solos

likely that the arrival of the *New Logic* is to be placed in the earlier, rather than in the later, years of the period with which we are dealing. In any case its sudden appearance in the logical and philosophical literature of the second quarter of the twelfth century should be brought into relation to a much-discussed notice of the year 1128. Under that year we read in the chronicle of Robert of Torigni, abbot of Mont-Saint-Michel:¹³

Iacobus clericus de Venecia transtulit de greco in latinum quosdam libros Aristotilis et commentatus est, scilicet Topica, Analyticos Priores et Posteriores, et Elencos, quamvis antiquior translatio super eosdem libros haberetur.

This entry is not found in the earliest redaction of the chronicle, completed in 1156-57, but appears in the redactions of 1169 and 1182, for the latter of which we have the author's own copy, and there can be no doubt that it emanated from Robert himself, who was by no means ignorant of what went on in Italy and who on more than one occasion takes the opportunity of mentioning significant facts of literary history.¹⁴ Although the entry is not strictly contemporary, it is by a well informed contemporary writer, and while the date may not be absolutely exact, it falls within a few years of the only other known reference to James of Venice, which mentions him at Constantinople in 1136.¹⁵ In the passage of Robert two important points stand out: the existence of an earlier version of the *Topics*, *Analytics*, and *Elenchi*, and the new rendering, with its accompanying commentary. Nothing is

mathematicos est, et in his fere apud geometras duntaxat; sed et huius quoque discipline non est celebris usus apud nos, nisi forte in tractu Ibero vel confinio Africe. Etenim gentes iste astronomie causa geometriam exercent pre ceteris, similiter Egyptus et nonnullae gentes Arabie. Ad hec liber quo demonstrativa traditur disciplina ceteris longe turbatur est, et transpositione sermonum traiectione litterarum desuetudine exemplorum que a diversis disciplinis mutuata sunt. Et postremo, quod non attingit auctorem, adeo scriptorum depravatus est vitio ut fere quot capita tot obstacula habeat, et bene quidem ubi non sunt obstacula capitibus plura. Unde a plerisque in interpretem difficultatis culpa refunditur, asserentibus librum ad nos non recte translatum pervenisse.'

¹³ Ed. Delisle, Société de l'Histoire de Normandie, i. 177; also in *M. G. H., Scriptores*, vi. 489.

¹⁴ See the well informed notices of Gratian (i. 183), Master Vacarius (i. 250), Burgundio of Pisa (i. 270; ii. 109), and Gilbert de la Porrée (i. 288).

¹⁵ Anselm of Havelberg, *Dialogi*, 2, 1, printed above, p. 197. Geyer, *Jahrbuch*, xxx. 38 f., rests his whole argument upon the year 1128.

said respecting the author of the earlier translation, but in the absence of any other known version it has generally been identified with that of Boethius. We have then to explain the main problem in the Aristotelian tradition of the early Middle Ages, namely why, if these works were translated by Boethius, they remained unknown from the sixth to the twelfth centuries, only to come to light at the very moment when they were also translated by James of Venice. Recently a solution has been sought, first by denying that any such translations were made by Boethius¹⁶ or, at least, that they survived, and then by maintaining that the versions current in the later Middle Ages under his name were really the work of James of Venice, in whose time they first emerge.¹⁷ James of Venice is himself a riddle. His learning, his knowledge of Greek, and his opportunity of access to Greek texts of Aristotle¹⁸ are known to us from Anselm of Havelberg's account of the disputation at Constantinople in 1136,¹⁹ but he is mentioned by no other chronicler, and no translations have been found in his name. With the field thus free for conjecture, some have cast doubt upon the statement of Robert of Torigni,²⁰ while others have made of James the chief intermediary in the transmission of the *New Logic* to Latin Europe. Neither of these views seems to me a sound interpretation of existing evidence, and both are invalidated by a new source of information.

In the library of the chapter of Toledo there is preserved a manuscript of the thirteenth century²¹ containing three transla-

¹⁶ In view of the explicit statements of Boethius on this point (*In Topica Ciceronis*, Migne, lxiv. 1051, 1052; *De differentiis topicis*, *ibid.*, coll. 1173, 1184, 1193, 1216), this denial of authorship (Schmidlin, p. 169; Grabmann, ii. 71) cannot be taken seriously. Cf. Brandt, "Entstehungszeit und zeitliche Folge der Werke von Boethius," in *Philologus*, lxii. 250, 261; Mandonnet, *Siger de Brabant*², p. 8.

¹⁷ This attribution to James was suggested by Rose, in *Hermes*, i. 381 f. (1866). Schmidlin and Grabmann succeed in convincing themselves that it has really been proved. Hofmeister (*Neues Archiv*, xxxvii. 657, 659, 663) is more cautious on this point, while denying positively the Boethian authorship of the current version.

¹⁸ On Aristotelian studies at Constantinople in the eleventh and twelfth centuries see Grabmann, ii. 74 f., and the literature there cited.

¹⁹ *Supra*, n. 15.

²⁰ So Jourdain, p. 50.

²¹ MS. 17-14, containing seventy-seven folios in different hands of the thirteenth century. The title of the volume at the top of f. 1 has been cut off. The MS. begins with the preface to the unknown translation discussed in this chapter, this transla-

tions of the *Posterior Analytics* and a version of the commentary of Themistius. One of the translations is the mediaeval version from the Greek commonly attributed to Boethius, another the ordinary version from the Arabic. The third²² contains a text which I have not succeeded in finding elsewhere, accompanied by a preface of exceptional interest:

[V]allatum multis occupationibus me dilectio vestra compulit ut Posteriores Analeticos Aristotelis de greco in latinum transferrem. Quod eo affectuosius agressus sum quod cognoscebam librum illum multos in se sciencie fructus continere et certum erat noticiam eius nostris temporibus Latinis non patere. Nam translatio Boecii apud nos integra non invenitur, et id ipsum quod de ea reperitur vitio corruptionis obfuscatur. Translationem vero Iacobi obscuritatis tenebris involvi silentio suo peribent Francie magistri, qui quamvis illam translationem et commentarios ab eodem Iacobo translatos²³ habeant, tamen noticiam illius libri non audent profiteri. Ea-propter siquid utilitatis ex mea translatione sibi noverit latinitas provenire, postulationi vestre debebit imputare. Non enim spe lucri aut inanis glorie ad transferendum accessi, sed ut aliquid²⁴ conferens latinitati vestre morem gererem voluntati. Ceterum si in aliquo visus fuero rationis tramitem excessisse, vestra vel aliorum doctorum ammonitione non erubescam emendare.

Here at last is a new bit of evidence regarding James of Venice: his translation included both the *Posterior Analytics* and commentaries thereon; it has reached the centres of learning in France, but, apparently because they have not conquered its difficulties,

tion ending on f. 11 v. Ff. 13-28 v have 'Translatio Posteriorum Analyticorum Aristotilis [secundum] with a letter effaced, i. e., the version current under the name of Boethius. F. 29, 'Translatio Posteriorum Analyticorum Aristotilis secundum Tthom [sic; cf. Geyer, p. 40, n.]. Omnis doctrina et omnis disciplina cogitativa non fit nisi ex cognitione. . . .' (= the ordinary version from the Arabic; see Jourdain, p. 404). F. 54, 'Explicit liber Posteriorum Analyticorum Aristotilis secundum translationem Th. Incipit commentum Themistii super eandem translationem Posteriorum Analyticorum. Scio quod si intendo . . .' (Jourdain, p. 405; see below, n. 63.) The treatise breaks off abruptly at the bottom of f. 77 v.

MS. 17-14 is not described by José Octavio de Toledo, *Catálogo de la librerta del cabildo toledano*, supplement to *Revista de Archivos*, viii and ix, and separately, Madrid, 1903. This catalogue, made in the library at the time of the revolution of 1869, has been printed without verification or completion and without any indication of the important MSS. at that time transferred to the Biblioteca Nacional at Madrid, where they still are. I examined MS. 17-14 at Toledo during the hour when the library was open May 2 and 14, 1913, but repeated efforts of friends to secure collations on the spot have been met with the statement that the MS. has been misplaced and can no longer be found. It will doubtless appear in due time, when the problems left open can be determined by certain collations.

²² F. 1. ²³ So corrected in margin from *translationem*. ²⁴ Or *aliud*? MS. *a'd*.

the masters make no public use of it. This disposes at once of the theory that the version of James is apocryphal, while it also makes clear that this version was not the basis of the revival of the *Analytiks*, and also renders it unlikely that it passed into general use and can thus be identified with the current translation. Robert of Torigni is also confirmed at another point, namely in his assertion, which some have sought to explain away,²⁵ that there was an older version already in existence. This our preface ascribes to Boethius, thus adding one more to the number of those who in the twelfth century accepted this attribution.²⁶ An explanation is also suggested why the Boethian translation came but slowly into use: it is incomplete, and the text is corrupt. This agrees exactly with John of Salisbury, who says of the current version, *adeo scriptorum depravatus est vitio ut fere quot capita tot obstacula habeat, et bene quidem ubi non sunt obstacula capitibus plura*; ²⁷ and the statement is amply confirmed by existing manuscripts, where to take only the instances where a Greek word was left standing in the Latin, we find in some cases merely *grecum*, while in others the word has become hopelessly corrupt.²⁸ Thus in 1, 2 (Bekker, p. 71, l. 18), where ἐπιστημονικόν was carried over and explained as *facientem scire*, we find in MS. R. 55 sup. of the Ambrosian (f. 194) *grecum* corrected to *apitelicon* in the first instance and in the second instance *ginitwopikoli*, while MS. H. IX, 2 of Siena (f. 130 v) has what seems intended for *epinuorikon*. In 1, 4 (Bekker, p. 73, l. 40) ἰσόπλευρον καὶ ἑτερόμηνες becomes in the Siena MS. (f. 132 v) *jjodniyipor* quod est equilaterum *kHedorinke* id est altera parte longius; in the Ambrosian (f. 195 v) *gyodlinkipo* quod est isopleros equilaterum *gkθuθceli*; in MS. VIII, 168 of St. Mark's (f. 94), *iodnapor* and *kaisodeorrylie*. In 1, 5 (Bekker, p. 74, l. 27) ἰσόπλευρον becomes *iodHaaqoH* and *kaiodpaapor* in the Siena MS. (ff. 133 v, 134), and *ortoniegobon* in the Ambrosian (f. 196 v), while σκαληνές is represented respectively by *kokaajyon* and *okaapor*. In 1, 7 the Greek text reads (Bekker, p. 75, l. 15): οἶον τὰ ὀπτικά πρὸς γεωμετρίαν καὶ τὰ

²⁵ Schaarschmidt, *Johannes Saresberiensis*, p. 122; Hofmeister, in *Neues Archiv*, xxxvii. 658 f. ²⁶ See below, nn. 31-33. ²⁷ *Metalogicus*, 4, 6, supra, n. 12.

²⁸ MS. Avranches 227 commonly has *grecum* in the passages cited in the text.

ἁρμονικὰ πρὸς ἀριθμητικὴν. This becomes in the Siena MS. (f. 135): ut *ontī kay* perspectiva ad geometriam *kaaīla apīHoyka* id est consonativa ad arimeticam. The Ambrosian MS. (f. 197 v) has *kagroapīnopīka*; MS. 557 of the Biblioteca Antoniana at Padua has *Rait^a apruopīl'ia*.

The existence of these passages does not, of course, go to prove that the translation in which they occur was the work of Boethius, but the whole trend of the available evidence seems to me to lead to that conclusion. Boethius tells us specifically that he translated both *Analytics* as well as the *Topics*.²⁹ These, however, pass out of use in the early Middle Ages, and as late as the time of Sigebert of Gembloux, who died in 1112, he is known as the translator of the *Categories* and the *De interpretatione* only.³⁰ Then comes the revival of the *New Logic* in the second quarter of the twelfth century, and at once men begin to ascribe its Latin form to Boethius. Our translator is clear on this point; Otto of Freising evidently held the same view;³¹ the anonymous poet on the seven liberal arts in an Alençon manuscript is quite explicit,³² and so is Burgundio the Pisan.³³ It is certainly significant that the generation which first possessed the *New Logic* considered Boethius to have been its translator. Moreover, when writers of this period quote passages from Aristotle they use the current version which in later manuscripts is regularly attributed to Boethius. This is notably true of Otto of Freising³⁴ and of John of Salisbury.³⁵ While in these cases the Latin text is not cited as being the work of Boethius, neither is it ascribed to any one else, and in the absence of twelfth-century manuscripts of the *New Logic*³⁶ fur-

²⁹ See above, n. 16.

³⁰ Migne, clx. 555.

³¹ *Chronicon*, 5, 1 (ed. Hofmeister, p. 230).

³² MS. 10, in Ravaisson, *Rapports sur les bibliothèques de l'Ouest* (Paris, 1841), p. 406: 'Transtulit hanc resolvendo binis analeticis.' Cf. Prentl, *Geschichte der Logik*, ii. 105; Hofmeister, in *Neues Archiv*, xxxvii. 672.

³³ *Infra*, n. 37.

³⁴ This is shown by Schmidlin, pp. 172-175, by means of a collation of MSS. Thierry of Chartres may use a different version of the *Prior Analytics* (Webb, *Ioannis Saresberiensis Policraticus*, i, p. xxv) but elsewhere uses the *vulgata* (Geyer, p. 30).

³⁵ Jourdain, pp. 254-256.

³⁶ Assertions of the catalogues to the contrary are without foundation in the case of Cod. Lat. Monacensis 16123 and MS. 401 of the Biblioteca Antoniana, both of

ther evidence is not at hand. While later copies frequently mentioned Boethius as the translator, none refer to James of Venice, who after the three contemporary notices which have been cited disappears — *obscuritatis tenebris involvitur*.³⁷ We know furthermore that the current version cannot be that of our anonymous translator, which is quite different, nor can it be the *nova translatio* cited by John of Salisbury,³⁸ who distinguishes the two. Until some definite evidence is produced to the contrary, we are justified in regarding the current mediaeval version as the work of Boethius.³⁹

It has indeed been urged by Grabmann⁴⁰ that Boethius could not have been the author of the translation of the *New Logic* because its Latinity is unworthy of so accomplished a stylist. The defect of this argument of course lies, apart from the ignorance of Boethius which it betrays, in overlooking the difference between translation and independent composition. Boethius translated

which are of the fourteenth century. I have verified Grabmann's statement (*Methode*, ii. 78) that there are in Paris no MSS. of the *New Logic* anterior to the thirteenth century, and have searched in vain for such MSS. elsewhere. For mention of Aristotle in contemporary catalogues of the twelfth century see Manitius, *Geschichte der lateinischen Litteratur des Mittelalters*, i. 30; Grabmann, ii. 78. Except for the occasional occurrence of the translation from the Arabic, the MSS. of the thirteenth and fourteenth centuries give regularly the Boethian versions. Delisle is in error in saying that MSS. 224 and 227 of Avranches (*Catalogue des MSS. des départements*, x. 103, 106) contain a different version.

³⁷ Curiously enough, James is not mentioned by his acquaintance Burgundio the Pisan in his review of translations from the Greek in 1173, where we read merely: 'Sed et Boetius clarissimus philosophus Porphyrium et Aristotilem in Categoriis et Periemeniis, in Topicis et Elenchis et Nichomachum arimeticis transferens de verbo ad verbum ex greca latine reddidit lingue' (MS. Ottoboni 227, f. 2; cf. Chapter VIII, note 36).

³⁸ See below, n. 53.

³⁹ The citations of Aristotle by Boethius are too few to serve as a basis for identifying the translation, but it is noteworthy that the definition quoted in the *repl* 'Eppewelas, 2, 6 (ed. Meiser, ii. 122), from the beginning of the *Prior Analytics* ('Propositio ergo est . . .') corresponds exactly with the current version. This is overlooked by Geyer, pp. 39 ff., who regards James of Venice as the author of the current version but brings forward no new evidence on this point.

⁴⁰ ii. 71: 'Ein Schriftsteller nun, dem solche Qualitäten als Stilisten und Latinisten von berufenster Seite zugesprochen werden, kann doch unmöglich die Latinität, die uns in den Aristotelesziten des Otto von Freising und in den Analytiken, der Logik und der Elenchik der scholastischen Schullogik entgegentritt, hervorgebracht und sich etwa grammatische Verstösse wie *parvissimum* geleistet haben.'

like a schoolboy because to him, as to the Middle Ages after him, faithful translation must be absolutely literal (*verbum verbo expressum comparatumque*), its purpose being *non luculentae orationis lepos sed incorrupta veritas*.⁴¹ Hence the much more frequent occurrence of Grecisms in the translations than in his other works. Statistical comparisons, it is true, show stylistic variations among the several Boethian translations, as for example between the *Prior* and the *Posterior Analytics*; ⁴² but these do not go so far as to indicate difference of authorship and cannot be safely used when made upon the uncertain basis of the present printed text. In any event a writer who can create a genitive of comparison to render a passage in Aristotle's *Categories* ⁴³ cannot be deprived of the version of the *Elenchi* because he sees fit to render *μικρότατον* by *parvissimum*.⁴⁴ If the argument proved anything, it would prove too much, for it would compel us to give up Boethius as a translator.

There remains still the problem why, with the translation of Boethius in existence, the *New Logic* was neglected until the twelfth century, and why it was so suddenly revived.⁴⁵ For an answer we have at present only guesses. One may easily suppose that in an age which had use for only elementary logic, as it had for only "the slenderest of lawbooks," the advanced treatises fell into neglect and the manuscript tradition was correspondingly attenuated. In the revival of dialectic in the twelfth century men begin to seek additions to the store of logical writings and they discover the Boethian text. It is incomplete and corrupt, and attempts are made, at least two in number, to provide a better

⁴¹ Boethius, *In Isagogen Porphyrii*, I (ed. Brandt, p. 135).

⁴² See McKinlay's careful investigation in *Harvard Studies*, xviii. 123-156.

⁴³ Migne, lxiv. 210; cf. McKinlay, p. 125.

⁴⁴ 2, 9, as quoted by Otto of Freising, *Chronicon*, 2, 8 (ed. Hofmeister, p. 76). There is, of course, classical authority (e. g., Lucretius, I, 615, 621; 3, 199) for the *parvissimum* which shocks Grabmann. The retouching of the mediaeval version in the printed text (Migne, lxiv. 1040) is well illustrated in this whole passage.

⁴⁵ There is also the problem as to what became of the Boethian commentaries on these works; cf. Brandt in *Philologus*, lxii. 250. Schmidlin (p. 169) uses the absence of such commentaries as an argument against the Boethian authorship of the translations, but similar reasoning might be used against his attribution of the translations to James of Venice, for we are expressly told that the version of James was accompanied by a commentary. See above, p. 229.

rendering. None of these attempts, however, succeeds in passing into general use, and the old translation, completed and perhaps improved but still in spots unintelligible, becomes the received version upon which mediaeval knowledge of the higher logic depends.

The character of the version of the Toledo manuscript will be clearer when it is seen beside the text of the current version which is given below in the second column. The first book begins:

Omnis didascalica et omnis disciplina deliberativa ⁴⁶ ex preexistenti fit cognitione. Manifestum autem hoc contemplantibus in cunctis. Etenim mathematice discipline per hunc modum veniunt et aliarum unaqueque artium. Similiter autem et circa orationes et que per syllogismos et que per inductionem; etenim utraque per precognita faciunt didascaliam, hee quidem accipientes ut ab intellectis, ille autem monstrantes universale per hoc quod manifestum est singulare. Similiter autem et rethorici persuadent, aut enim per exemplum, ⁴⁷ quod est inductio, aut per enthymemata, quod est syllogismus. . . .

Book ii begins and ends:

Quesita sunt equalia numero quot scimus. Querimus autem quatuor: quod, propter quod, an est, quid est. Etenim quando prius quidem hoc aut hoc querimus in numerum ponentes, sicut utrum deficit sol aut non.

.

Si igitur nullum aliud preter scientiam genus habemus verum, intellectus sit scientie principium, et hoc quidem principium principii sit. Hoc autem omne similiter se habet ad [omnem] rem.

⁴⁶ MS. *delibata*.

Omnis doctrina et omnis disciplina intellectiva ex preexistenti fit cognitione. Manifestum est autem hoc speculantibus in omnes. Mathematice enim scientiarum per hunc modum fiunt et aliarum unaqueque artium. Similiter autem et circa orationes que per syllogismos et que per inductionem fiunt; utraque enim per prius nota faciunt doctrinam, he autem incipientes tanquam a notis, ille vero demonstrantes universale per id quod manifestum est singulare. Similiter autem et rethorice persuadent, aut enim per exemplum, quod est inductio, aut per entimema, quod vere est syllogismus. . . .

Questiones sunt equales numero his quecumque vere scimus. Querimus autem quatuor: quod est, propter quod est, si est, quid est. Cum quidem enim utrum hoc aut hoc sit querimus in numerum ponentes, ut utrum sol deficiat aut non, ipsum quod querimus.

Si igitur nullum aliud genus preter scientiam habemus verum, intellectus utique scientie erit et hoc quidem principium principii utique erit. Hoc autem omne similiter se habet ad omne rerum genus.

⁴⁷ Gloss: *vel exempla*.

Both renderings have the extreme literalness characteristic of mediaeval translations from the Greek, but the Toledo text is distinctly the closer of the two, as seen in the omission of the predicate and the carrying over of such words as *didascalía*. Other characteristics of this version are the use of *autem* instead of *vero* for $\delta\epsilon$, the insertion of a superfluous relative to represent the article in an attributive phrase,⁴⁸ and the rendering of the optative with $\kappa\alpha\iota$ by the subjunctive in cases where Boethius uses *utique* with the future indicative.⁴⁹ Though he had Boethius before him, the author still shows some independence, judged by mediaeval standards; his work is not that of an unskilled hand; and the fact that the preface contains no suggestion of ignorance or inexperience, such as is frequent in such prologues, makes it probable that this was not his first labor of translation.

No clew is given to the name of the translator or the friend to whom his work is dedicated, but the preface must have been written between the appearance of the translation of James of Venice ca. 1128 and the close of the twelfth century, when a new version had been made from the Arabic by Gerard of Cremona (d. 1187), and when the *Posterior Analytics* had begun to influence the teaching of logic at the University of Paris.⁵⁰ Moreover, in all probability it is anterior to 1159, when the *Metaphysics* of John of Salisbury shows that the knowledge of the *Posteriora* was already "open to the Latin world," and can thus be placed in the generation which first received the *New Logic*. The author is in touch with the teaching of the French schools, yet he speaks of their masters (*Francie magistri*) in a way which implies that he was not a Frenchman; and his knowledge of Greek and access to the Greek text would imply that, if not an Italian, he was at least for the time being resident in Italy. We know that two of the Italian translators of this period were acquainted with the *Posteriora*, the Pisan Burgundio, whom John of Salisbury cites in the *Metaphysics*⁵¹ as an authority for a statement concerning Aris-

⁴⁸ Thus $\tau\acute{o}\delta\epsilon \tau\acute{o} \epsilon\nu \tau\tilde{\omega} \eta\mu\kappa\kappa\upsilon\kappa\lambda\iota\omega \tau\rho\acute{\iota}\gamma\omega\nu$ (Bekker, p. 71, l. 20) becomes 'hic qui in semicirculo triangulus.'

⁴⁹ Cf. also the translation of the *Almagest*: supra, Chapter IX. ⁵⁰ See below, n.64.

⁵¹ 4, 7 (Migne, cxcix. 920): 'Fuit autem apud Peripateticos tante auctoritatis scientia demonstrandu ut Aristoteles, qui alios fere omnes et fere in omnibus philo-

totle, and the Sicilian Henricus Aristippus, who in the preface to his version of the *Phaedo*, written in 1156, singles out the *Apodictica* as one of the notable works to which scholars have access in Sicily;⁵² but both of these are excluded from the authorship of the Toledo preface by its style and by the familiarity it betrays with French learning. Aristippus, it is true, has, on the basis of the passage just cited, been set down as a translator of the *Posteriora*, and further conjecture has made him the source of John of Salisbury's acquaintance with this treatise and the author of the *nova translatio* which John cites in a passage of the *Metalogicus*.⁵³ There is, however, no reason for believing that Aristippus translated all the Greek writings which he cites in his prefaces, nor is there the least basis for identifying him with the *greco* *interpres* with whom John of Salisbury studied in Apulia and from whom he is, without any warrant, supposed to have obtained the *nova translatio*. John's familiarity with the *Posteriora*, which he is one of the first northern authors to cite,⁵⁴ may well have been the result of his frequent journeys to Italy, perhaps

sophos superabat, hinc commune nomen sibi quodam proprietatis iure vindicaret quod demonstrativam tradiderat disciplinam. Ideo enim, ut aiunt, in ipso nomen philosophi sedit. Si mihi non creditur, audiat vel Burgundio Pisanus, a quo istud accepi.' The passage does not show personal familiarity with the *Posteriora* on the part of Burgundio but merely knowledge of the Byzantine tradition, such as he doubtless acquired in the course of his visits to Constantinople. On Burgundio see Chapter X.

⁵² *Hermes*, i. 388: 'Habes de scientiarum principiis Aristotelis Apodicticen, in qua supra naturam et sensum de axiomatis a natura et sensu sumptis disceptat.' On Aristippus see Chapter IX.

⁵³ 2, 20 (Migne, col. 885): 'Gaudeant, inquit Aristoteles [*Anal. Post.*, i, 22, Bekker, p. 83, l. 33], species; monstra enim sunt, vel secundum novam translationem cicadationes enim sunt; aut si sunt, nihil ad rationem.' Cf. Rose, in *Hermes*, i. 381 ff. The identification of Aristippus with the *greco* *interpres* and the author of the *nova translatio* was first advanced by Rose on the basis of an ingenious combination of conjectures. It has been accepted without indicating its conjectural character by Grabmann and Schmidlin, and by Baeumker, in *Allgemeine Geschichte der Philosophie (Die Kultur der Gegenwart*², i, 5), p. 363; Hofmeister and Mandonnet are more cautious. Webb gives a sober résumé of this *quaestio difficillima*. What is most needed is more facts. Geyer, p. 42, suggests that John may refer to a translation of this single term only.

⁵⁴ He is usually considered the first, but the *Posteriora* seems to have been used, in a translation which requires investigation, by the author of the *De intellectibus*, which belongs to the school of Abelard. Prantl, *Geschichte der Logik*², ii. 104, n. 19; Geyer, p. 37.

even of his sojourns in Apulia, but he quotes the "new translation" only once, and his steady reliance is on the current version. When the Toledo manuscript again becomes accessible to scholars, it will be easy to determine whether it contains the rendering of *reperloquara* by *cicadationes* which earmarks the *nova translatio* of the *Metalogicus*. Meanwhile, since in this period we hear of a text of the *Posteriora* in Sicily only, it would seem that the home of the Toledo version should be sought there, while its author's acquaintance with the French schools points to one of the scholars from beyond the Alps who are found not infrequently as visitors to the southern kingdom.

The collation of another passage may very likely determine the relation of the Toledo version to still another translation from the Greek, cited as the work of a certain John by Albertus Magnus, who in one instance prefers it to the Boethian rendering.⁵⁵ The conjecture that the name is an error for James⁵⁶ is not supported by the manuscripts, and the identification with John of Basingstoke⁵⁷ has to explain the silence of Grosseteste, who, if a translation by his friend Basingstoke had been in existence, would certainly have made use of it in his commentary on the *Logic*. Another John who was concerned with the *Posterior Analytics* is John of Cornwall, under whose name a series of *Questiones* is preserved in a manuscript of Magdalen College, Oxford.⁵⁸ Inasmuch, however, as this work constantly cites *Lincolniensis*, it cannot be the work of John of Salisbury's contemporary of that name,⁵⁹ whose writings moreover betray no familiarity with Greek; and even if we crowd the chronology sufficiently to admit the citation of

⁵⁵ In *Analytica posteriora*, I, 4, 9; 2, 2, 5; *Opera* (Lyons, 1651), i. 579, 624. See Jourdain, p. 310.

⁵⁶ Jourdain, p. 59. I have collated MS. Vat. Lat. 2118, f. 140; and MS. Lat. 16080, f. 101 v, of the Bibliothèque Nationale.

⁵⁷ Prantl, *Geschichte der Logik*, iii. 5.

⁵⁸ MS. 162, ff. 183-245 v; cf. Coxe, *Catalogus*, ii. 75. The treatise begins and ends: 'Scire autem opinamur unumquodque cum causam recognoscamus . . . licet alia non cognoscatur nisi tantum in universali.' Then follow 'Tituli questionum Cornubiensis' to the number of forty-seven, with this explicit: 'Expliciunt questiones et tituli tam primi libri quam secundi Posteriorum Analeticorum dati a domino Johanne de Sancto Germano de Cornubia. Amen.' There was a copy at Canterbury ca. 1500: Historical MSS. Commission, *Various Collections*, i. 225.

⁵⁹ On whom see Kingsford, in *Dictionary of National Biography*, xlix. 438.

Grosseteste on the one hand and the use of the *Questiones* by Albert on the other, there is, in such portions of the text as I have been able to examine by means of photographs, no indication that any save the ordinary translation was used in the *Questiones*. For the present we must leave the problem of John's version unsolved.

Likewise of the twelfth century is the first translation of the *Posteriora* from the Arabic, which appears in the long list of works turned into Latin by that indefatigable translator Gerard of Cremona, who died in 1187.⁶⁰ No copy of this translation has been found under Gerard's name,⁶¹ but if it acquired anything of the popularity enjoyed by his other versions, we are justified in identifying it with a version which occurs not infrequently in manuscripts of the thirteenth century and is plainly derived from the Arabic.⁶² The list of Gerard's translations also includes the commentary of Themistius on the *Posteriora*, of which we have copies which are clearly based upon an Arabic original.⁶³

By the close of the twelfth century, accordingly, there had been produced at least four Latin versions of the *Posterior Analytics*, the work respectively of Boethius, James of Venice, the anonymous translator of the Toledo manuscript, and Gerard of Cremona; while further investigation is required to determine whether the *nova translatio* cited by John of Salisbury and the version of the unknown John should be added as a fifth and a sixth or are to be identified in one or both cases with those of James of Venice and of the Toledo text.

⁶⁰ Boncompagni, in *Atti dell' Accademia dei Lincei*, iv. 388 (1851); Wüstenfeld, p. 58; Steinschneider, *E. U.*, no. 46(8, 38).

⁶¹ It is, however, cited by Richard of Furnival, ca. 1250: Delisle, *Cabinet des MSS.*, ii. 525; Birkenmajer, *Ryszarda di Fournival*, p. 44, no. 14.

⁶² Jourdain, p. 404, gives a specimen.

⁶³ See the specimen in Jourdain, p. 405; and cf. MS. Lat. 14700 of the Bibliothèque Nationale; MS. 17-14 of Toledo, f. 54; Cod. Lat. Monacensis 317 (*Catalogus codicum MSS. Latinorum*, edition of 1892, i. 80). Probably this is the commentary mentioned in the mediaeval catalogue of the Sorbonne: Delisle, *Cabinet des MSS.*, iii. 57.

It may be observed in this connection that the MSS. themselves give no support to Valentinelli's statement (*Bibliotheca manuscriptorum*, iv. 13-15) that the translation of the *Topica* and *Elenchi* in two codices of St. Mark's is the work of Abraham de Balmes, the physician of Cardinal Grimani. The MSS. are anterior to Abraham's time, and the text has the *incipits* of the current mediaeval version.

As a subject of academic study the *Posterior Analytics* found its way slowly into the mediaeval universities. Alexander Neckam, who can hardly have begun his studies at Paris before 1175, describes the change in the teaching of logic there produced by its introduction,⁶⁴ and Roger Bacon speaks of the first lectures on it at Oxford as given in his time by a certain Master Hugh.⁶⁵ Elaborate commentaries were, however, prepared by the great schoolmen of the thirteenth century, some of whom took pains to collate the different versions. Grosseteste, though relying mainly upon the current Boethian translation, also cites *alie translationes* and the commentary of Themistius.⁶⁶ The *Questiones* of John of Cornwall, whoever he may have been, seems to follow Grosseteste and the current version.⁶⁷ Albertus Magnus is careful to compare this version, which he ascribes to Boethius, with that from the Arabic and with that of the unknown John, and cites the works of Themistius and John the Grammarian, as well as the Arab commentators.⁶⁸ The commentary of Thomas Aquinas on the *Posteriora*⁶⁹ is, like his other commentaries, less discursive and follows with some closeness the current text, corrected in at least one instance by reference to the Greek.⁷⁰ The ordinary version is also followed by the later schoolmen, Egidio Colonna, Albert of Saxony, and Walter of Burley.⁷¹

⁶⁴ *De naturis rerum*, ed. Wright, p. 293: 'Antequam legeretur liber ille asserebant doctores Parisienses nullam negativam esse immediatam. Sed hic error sublatum est de medio per beneficium Apodixeos.' Cf. Chapter XVIII.

⁶⁵ Rashdall, *Universities of the Middle Ages*, ii. 754; Sandys, *History of Classical Scholarship*³, i. 570.

⁶⁶ Baur, *Die philosophischen Werke des Robert Grosseteste* (*Beiträge*, ix), p. 18*. I have examined MS. Borghese 306 of the Vatican.

⁶⁷ *Supra*, n. 58.

⁶⁸ See his commentary in *Opera* (Lyons, 1651), i. 513-658; ed. Borgnet (Paris, 1890), ii. 1-232; and cf. Jourdain, pp. 308-310.

⁶⁹ *Opera* (Rome, 1882), i. 129-403.

⁷⁰ Bk. i, lect. 6, according to the text of Jourdain, p. 396. I can find no evidence that, as Mandonnet says (pp. 11, 40-42), William of Moerbeke translated the logical works for the benefit of St. Thomas. The passages cited from contemporary writers do not mention these among William's Aristotelian translations, nor is any copy of them known. Cf. Grabmann, ii. 70.

⁷¹ These commentaries exist in various early editions. That of Albertus de Saxonia is in MS. 227 of Avranches (*Catalogue des MSS. des départements*, x. 106); see further *Beiträge*, xxii, no. 3-4, p. 48.

It is characteristic of the place which Aristotle still held in European thought that he should have been one of the earliest authors at whom the humanists tried their hand. Roberto de' Rossi, the first pupil of Chrysoloras, busied himself with the works of the Stagyrice, seeking to soften the bare harshness of the literal version of Boethius,⁷² and we have from his pen a rendering of the *Posterior Analytics* which can be definitely assigned to the close of the year 1406. Voigt, it is true, knows of Robert's translations only through their mention by Guarino of Verona and says they do not occur in the manuscript catalogues;⁷³ but MS. 231 of the *Fondo antico* of St. Mark's⁷⁴ contains *Aristotelis Posteriorum Analeticorum nova Roberti translatio*, accompanied by a preface and by verses at the end which fix the date by reference to the reconstruction of the citadel and walls of Pisa.⁷⁵ Valentinelli indeed infers from these verses that the author was a Pisan of the late fourteenth century, but *nostris cives* would have no point if a Pisan were speaking, and the only others so engaged at Pisa were the Florentines, whose fortification of the city and oppression of the conquered after its final capture⁷⁶ are here exactly described. The author is not further indicated, but the name and year can point only to Robert de' Rossi.⁷⁷ Freer in style and less indebted to the mediaeval rendering was the more popular Renaissance

⁷² 'Dignus enim vir ille ut cunctis modis humanitatis auribus insinuetur atque sterilis illa durities quam ad verbum translatio pepererat pro viribus nostris civibus delinienda et demulcenda paulum fuit' [sic]. F. 2 v of the MS.

⁷³ *Wiederbelebung* 3, i. 289, ii. 173.

⁷⁴ Parchment, written in a humanistic hand of the fifteenth century. Cf. Valentinelli, *Bibliotheca manuscripta ad S. Marci Venetiarum*, iv. 32.

⁷⁵ Haec ego dum conor nostris aperire Latinis

.

Interea nostri reparabant turribus arcem
Pisanam murisque novis atque aggere cives.

The lines are given in full by Valentinelli.

⁷⁶ See *Cronichella di anonimo pisano*, in Corazzini, *L'assedio di Pisa* (Florence, 1885), p. 75; Matteo Palmieri, in Muratori, *Scriptores*, xix. 194; Morelli, *Cronaca*, p. 338.

⁷⁷ The text begins (f. 4): 'Omnis doctrina omnisque disciplina intellectiva ex antea existenti efficitur cognitione. Preclarumque hoc est his qui per cuncta aciem mentis intenderint. Quæ enim scientiarum sunt mathematicæ per huiusmodi modum acquiruntur atque aliarum etiam quævis artium. . . .'

version which John Argyropoulos dedicated to Cosmo de' Medici.⁷⁸ The Boethian translation, however, persisted in early imprints, corrected and touched up in course of time in ways which still require investigation,⁷⁹ but still holding its own by reason of its faithfulness to the text of the master whose words were not to be lightly changed.

⁷⁸ It begins: 'Omnis doctrina omnisque disciplina intellectiva ex antecedenti cognitione fieri solet. Id si omnis quo fiunt pacto considerabimus manifestum profecto fiet . . .': MS. Vat. Lat. 2116, f. 49 v. For the author's prefaces in MSS. of the Laurentian, see Bandini, *Catalogus codicum Latinorum*, iii. 4, 350.

⁷⁹ The humanistic retouching of the text in the Basel edition and in Migne is obvious but cannot be studied until we have a critical restitution of the mediaeval text. It should, however, be kept in mind that the text of these editions is not, as Grabmann thinks (ii. 72), the same as the version of Argyropoulos; see now the study of Minges in *Philosophisches Jahrbuch*, xxix. 250-263 (1916); and cf. Geyer *ibid.*, xxx. 25-27.

CHAPTER XII

SCIENCE AT THE COURT OF THE EMPEROR FREDERICK II¹

THE Emperor Frederick II is a subject of perennial interest to the historian. The riddle of his many-sided personality, his place at the centre of one of the great struggles of European politics, the striking anticipation of more modern ideas and practices in his administration, the brilliant and precocious culture of his Sicilian kingdom, have attracted the attention of two generations of scholars without definitive results. We still lack a satisfactory biography and a survey of the governmental system, as well as annals for the later years of the reign, while for its intellectual history nothing has superseded what was written by Amari² and Huillard-Bréholles³ more than half a century ago. As regards vernacular literature, the scantiness of the extant material has so circumscribed the problem that we now understand fairly well the importance of the *Magna Curia* as the cradle of Italian poetry and the origin of particular forms like the sonnet.⁴ The Latin literature of the South has been partially explored by Hampe and others, though its relations to intellectual movements in northern

¹ Revised from *The American Historical Review*, xxvii. 669-694 (1922); cf. *Rivista storica italiana*, 1923, pp. 165 ff. The best sketch of Frederick is that of Karl Hampe, "Kaiser Friedrich II," in *Historische Zeitschrift*, lxxxiii. 1-42 (1899). The newer materials for the study of the reign are noted in his *Deutsche Kaisergeschichte* (Leipzig, 1919), pp. 219 ff.; and his *Mittelalterliche Geschichte* (Gotha, 1922), pp. 84 ff. E. Winkelmann's fundamental annals, *Kaiser Friedrich II.* (Leipzig, 1889-97), stop with 1233.

² *Storia dei Musulmani di Sicilia* (Florence, 1854-72), iii. 655 ff.

³ *Historia diplomatica Friderici Secundi* (Paris, 1859-61), introduction, especially pp. dxix-dlv.

⁴ See particularly E. F. Langley, "The Extant Repertory of the Sicilian Poets," in *Publications of the Modern Language Association of America*, xxviii. 454-520 (1913); and the important studies of Ernest H. Wilkins on the origin of the *canzone* and the sonnet, *Modern Philology*, xii. 135-166, xiii. 79-110 (1915). For Frederick's relations with Provençal poets, see the studies of de Bartholomæis, in *Memorie of the Bologna Academy*, i. 69-124 (1911-12); and Bertoni, *I trovatori d'Italia* (Modena, 1915), pp. 25-27.

Italy and elsewhere require further inquiry.⁵ On the scientific side, while much remains to be done with the fragmentary materials, investigation has advanced to a point where it may be worth while to supplement and correct the older writers by a general survey of the present state of our knowledge. If the results do not greatly enlarge our acquaintance with the content of thirteenth-century science, they at least illustrate more fully its methods and the workings of one of the most remarkable minds of the Middle Ages.

The intellectual life of Frederick's court cannot be regarded as an isolated or merely personal phenomenon. Lying between the Middle Ages and the Renaissance, it must be seen against the cosmopolitan background of Norman Sicily, the meeting-point of Greek, Arabic, and Latin culture, central in the history as in the geography of the Mediterranean lands. Frederick was not the first but the second of the "two baptized sultans" on the Sicilian throne,⁶ and in intellectual matters as in legislation he followed in the direction of his grandfather Roger. King Roger's chief scientific interest was geography, pursued assiduously throughout the fifteen years of his reign. Finding the Arabian geographies and translations insufficient for his purpose, he called to his court famous travellers from many lands and subjected them to a close examination, accepting only the facts on which they were agreed, and recording the results upon a great silver map and in a volume of descriptive text in Arabic which Edrisi completed in 1154.⁷ This method is not unlike that followed by Frederick in consulting experts on falconry, among whom he cites King Roger's falconer, William, who passed as one of the earliest writers on this subject.⁸ Under Roger's immediate successors, William I and

⁵ This is the freshest part of the notable article of the late H. Niese, "Zur Geschichte des geistigen Lebens am Hofe Kaiser Friedrichs II," in *Historische Zeitschrift*, cviii. 473-540 (1912). There are noteworthy essays by F. Novati in his *Freschi e minii del dugento* (Milan, 1908), especially pp. 103-142.

⁶ The phrase is Amari's, *Musulmani*, iii. 365.

⁷ *L'Italia descritta nel "Libro del Re Ruggero,"* translated by Amari and Schiaparelli (Rome, 1883), pp. 4-8; Edrisi, translated by Reinaud (Paris, 1836), i, pp. xviii-xxii; *Encyclopaedia of Islam*, ii. 451. Pardi has recently argued that the final form of the work must be subsequent to 1154: *Rivista geografica italiana*, xxiv. 380 (1917).

⁸ *Infra*, Chapters XIV, XVII.

William II, scientific activity took the form particularly of the translation of Greek works on mathematics and astronomy: the *Data*, *Optica*, and *Catoptrica* of Euclid, the *Pneumatica* of Hero of Alexandria, the *De motu* of Proclus, even the *Almagest* of Ptolemy. Scientific observation, fed by the *Meteorology* of Aristotle, concerned itself with the phenomena of Etna.⁹ At the same time Ptolemy's *Optics* was translated from the Arabic, and the household of William II, as portrayed in the scenes of his death, comprised an Arab physician and an Arab astrologer.¹⁰

At the court of Frederick II the Greek element is of little significance. Greek versions of his laws were issued, and Italian poets sang his praises in Greek verse, but the influence of Byzantium had declined with the fall of the Greek empire, and we hear little of Greek scholars or Greek translations in this period in the South.¹¹ On the other hand, Arabic influence was, if anything, stronger under Frederick, especially after his visit to the East, and was maintained by the political and commercial relations with Mohammedan countries, while his imperial interests fostered intercourse with northern Italy, Germany, and Provence. The chronicler who passes by the name of Nicholas of Iamsilla tells us that at Frederick's accession there were few or no scholars in the Sicilian kingdom, and that it was one of his principal tasks by means of liberal rewards to attract masters from various parts of the earth.¹² What scholars were thus drawn to the Sicilian court we know but imperfectly. The loss of the imperial registers, save for a fragment of 1239-40,¹³ makes it impossible to reconstruct in detail the organization and personnel of the household, and the scattered documents of the reign tell us almost nothing of the men who aided the emperor in his scientific inquiries. That they were chiefly officials of the *curia* seems alto-

⁹ Supra, Chapter IX.

¹⁰ Petrus de Ebulo, *Liber ad honorem Augusti*, plate 3.

¹¹ Krumbacher, pp. 769 f.; Niese, in *Historische Zeitschrift*, cviii. 490 ff.; cf. Bresslau, *Urkundenlehre* (1915), ii. 380 ff. Further investigation is needed respecting Greek in the South in the thirteenth century.

¹² Muratori, viii. 496.

¹³ On which see the recent studies of Niese, in *Archiv für Urkundenforschung*, v. 1-20 (1913); and Sthamer, in *Berlin Sitzungsberichte*, 1920, pp. 584 ff.

gether likely. Several of the Sicilian school of poets held official positions as notaries, judges, or falconers,¹⁴ and we are not surprised to find Frederick's astrologer, Theodore, engaged in the same year in casting horoscopes, going on missions, making confectionery, drafting letters, and translating an Arabic work on falconry. In this busy court science, like literature, would seem to have been a matter for leisure hours, and its votaries could be no narrow specialists.

Two of Frederick's courtiers seem to have borne the official title of 'philosopher,' and in an age when philosophy and science were inseparable these two were naturally the chief advisers of the emperor in scientific matters. The more famous of them, Michael Scot,¹⁵ who hailed originally from Scotland, came to Sicily with a reputation gained chiefly in the schools of Spain. Appearing at Toledo as early as 1217, Michael there distinguished himself by translating al-Bitrogi *On the Sphere* and Aristotle *On Animals*, as well as the *De caelo* and the *De anima* with the commentaries of Averroës thereon. By 1220 he is in Italy, and from 1224 to 1227 he enjoys the favor of the pope and the grant of benefices in England and Scotland; but soon thereafter he is found in the emperor's service, in which, though not mentioned in any surviving official documents, he remained until his death, which occurred before 1236. His official position was that of court astrologer, but he made for the emperor a Latin summary of Avicenna's *De animalibus* and busied himself with a series of writings on astrology, meteorology, and physiognomy, all dedicated to Frederick. These show acquaintance with medicine, music, and alchemy, as well as with the Aristotelian philosophy in general. We are told that he knew Hebrew as well as Arabic, but his linguistic attainments are the occasion of unfavorable comment on the part of Roger Bacon. Scot had a respectable knowledge of the Arabian astronomy and its applications, and prided himself on the accuracy of his observations and calculations. His faith in astrology does not, in his age, militate against his stand-

¹⁴ See Langley's list in *Publications of the Modern Language Association*, xxviii. 468 ff., and the references there cited, especially the researches of Scandone in *Studi di letteratura italiana*, v, vi.

¹⁵ See the following chapter.

ing as a scientist, but his own writings show him to have been pretentious and boastful, with no clear sense of the limits of his knowledge, and with a tendency to overstep the line, if line there be, between astrology and necromancy. At the same time he had an experimental habit of mind, and a final judgment as to his scientific attainments must await the more careful sifting of his extensive treatises on astrology, the *Liber introductorius* and the *Liber particularis*.

If Michael Scot represented the learning of Moorish Spain and Western Christendom, Master Theodore 'the philosopher' seems to have maintained relations particularly with the East.¹⁶ Greek, or perhaps Jewish,¹⁷ by name, he is said to have been sent to Frederick by the Great Caliph, probably the sultan of Egypt, some time before 1236.¹⁸ If we may believe the prologue to the French romance of *Sidrach*, Theodore, here called "Todre li philosophes," came from Antioch and remained in relations with its Latin patriarch; while Abulfaragius makes him a Jacobite Christian of Antioch who studied at Mosul and Bagdad and enjoyed the favor of the sultan.¹⁹ In the autumn of 1238, at the siege of Brescia, he appears in the Dominican annals as silencing the friars in philosophical disputes until, challenged to public debate on any subject of philosophy with the doughty Roland of Cremona, he is triumphantly confuted, to the great glory of the

¹⁶ See, in general, Amari, *Musulmani*, iii. 692-695; Steinschneider, *E. U.*, no. 116; Sudhoff, in *Archiv für die Geschichte der Medizin*, ix. 1-9 (1915); Suter, in the *Erlangen Abhandlungen zur Geschichte der Naturwissenschaften*, iv. 7 f. (1922).

¹⁷ Renan, in *Histoire littéraire de la France*, xxxi. 290.

¹⁸ 'Explicit liber novem iudicum quem misit soldanus Babilonie imperatori Federico tempore quo et magnus chalif misit magistrum Theodorum eidem imperatori Federico': British Museum, Royal MS. 12 G. VIII; cf. French version in Langlois, *La connaissance de la nature au moyen âge* (1911), p. 191; Amari, iii. 694. The *Liber novem iudicum* is cited by Michael Scot in his *Liber introductorius* (Munich, cod. lat. 10268, f. 128), and must thus have reached Sicily before 1236. The phrase 'magnus chalif' does not strengthen our faith in this colophon.

The references to Theodore in the writings of Leonard of Pisa may well be earlier, but the answers to Theodore's questions look like later additions to the original text of Leonard's *Flos* and *Liber quadratorum*, so that they cannot be dated with certainty.

¹⁹ H. L. D. Ward, *Catalogue of Romances in the British Museum*, i. 904 ff.; *Histoire littéraire*, xxxi. 288-290; Langlois, p. 204; *Erlangen Abhandlungen*, iv. 8.

order.²⁰ Probably succeeding Scot as court astrologer, Theodore casts the imperial horoscope at Padua in 1239, where he is ridiculed by the local chronicler for seeking a favorable conjunction impossible at the time and failing to search in Scorpio for the impending failure of the expedition.²¹ In the register of 1239-40 he is found drafting the emperor's Arabic letters to the king of Tunis and acting as his trusty messenger. In this same year he is busy compounding syrups and sugar of violet for the emperor and his household, with free credit in money and costly sugar for this purpose, and a box of the violet sugar is sent to Piero della Vigna during his recovery from an illness.²² In 1240-41 the emperor corrects his translation from the Arabic.²³ No further dates are known in Theodore's career, but he continued to enjoy imperial favor until his death not long before November, 1250, when Frederick regranted the extensive domains which "the late Theodore our philosopher held so long as he lived."²⁴

While the biographical data are somewhat fuller in the case of Theodore than in that of Michael Scot, the evidence of his literary activity is much less. Apart from a doubtful connection with the transmission of the philosophical romance of *Sidrach*, Theodore is known only as the author of a treatise on hygiene extracted for the emperor's benefit from the *Secretum secretorum* of the Pseudo-Aristotle,²⁵ and a Latin version of the work of Moamyn on the care of falcons and dogs.²⁶ His preface to this shows acquaintance

²⁰ Quétif and Échard, *Scriptores Ordinis Praedicatorum*, i. 126, col. 2. On Roland of Cremona see now Ehrle, in the anniversary *Miscellanea Dominicana* (Rome, 1923), pp. 85-134, especially p. 94.

²¹ Rolandino, in Muratori, viii. 228 (new edition, viii. 66); and in *M. G. H., Scriptores*, xix. 73.

²² Huillard-Bréholles, *Historia diplomatica*, v. 556, 630, 727, 745, 750 ff.; idem, *Pierre de la Vigne*, p. 347.

²³ *Infra*, Chapter XIV, n. 122.

²⁴ Original charter published by Schneider in *Quellen und Forschungen aus italienischen Archiven*, xvi. 51 (1913); cf. the inquest of the Angevin period published by Scandone in *Studi di letteratura italiana*, v. 308 (1903). Theodore may well have been one of the astrologers lost in the defeat before Parma in 1248: Hartwig, in *Centralblatt für Bibliothekswesen*, iii. 183. The account of Thadhûri of Antioch in Abulfaragius makes him take poison after flight from the emperor: Suter, no. 345; *Z. M. Ph.*, xxxi, sup., pp. 107 f.; Erlangen *Abhandlungen*, iv. 8.

²⁵ Ed. Sudhoff, in *Archiv für die Geschichte der Medizin*, ix. 4 (1915).

²⁶ Chapter XIV, n. 122.

with Aristotle, including the *Ethics* and the *Rhetoric*, such as a court philosopher should have, while he also exhibits medical knowledge. Mathematician as well as astrologer, he puts problems to Leonard of Pisa, and is addressed by him as "the supreme philosopher of the imperial court," whose cosmopolitan culture he well represents.²⁷

Another court philosopher, John of Palermo, mentioned by Leonard of Pisa in 1225, is probably identical with the Master John the notary who acts as confidential agent of the emperor in 1240, but we know nothing of his scientific tastes beyond his interest in mathematics.²⁸ A Master Dominicus, perhaps a Spaniard, appears in the same connection.²⁹ The Sicilian Moslem who tutored Frederick in logic during his crusade remains anonymous,³⁰ with many other scholars who must have attended the court. One of these, for example, appears in correspondence on mathematical subjects with a learned Jew of Spain.³¹

The more literary members of the *Magna Curia*, such as Piero della Vigna, are silent respecting their scientific associates, save for such an exchange of compliments and sugar plums as has been cited. The interests of Piero, as of the other members of the Capuan school, were primarily literary, and his letters would not have become models of Latin style for the thirteenth century³² had he not been first and foremost a phrasemaker who spoke "obscurely and in the grand manner."³³ The extant collections of correspondence which pass under his name were preserved for rhetorical rather than historical purposes, and there was no occasion for retaining in them whatever of the scientific life of the court the originals might have reflected. Nevertheless, some of his phrases suggest its other intellectual interests, as when he borrows the language of the current cosmogony in the preface to

²⁷ *Scritti di Leonardo Pisano*, ed. Boncompagni (Rome, 1857-62), ii. 247, 279.

²⁸ *Ibid.*, ii. 227, 253; Huillard-Bréholles, ii. 185, v. 726 ff., 745, 928.

²⁹ Leonardo, *Scritti*, ii. 1, 253; Cantor, ii. 35 ff., 41.

³⁰ Amari, *Biblioteca Arabo-Sicula*, ii. 254.

³¹ Steinschneider, *H. U.*, p. 3.

³² Critical edition lacking. See Huillard-Bréholles, *Pierre de la Vigne*, pp. 249 ff.; Hanauer, in *Mitteilungen des Instituts für österreichische Geschichtsforschung*, xxi. 527-536 (1900).

³³ So Odofredus characterizes him, *Mitteilungen des Instituts*, xxx. 653, n. 1.

the emperor's *Constitutions*,³⁴ or refers to the preoccupation of the friars with the form of the globe, the course of the sun in the zodiac, the squaring of the circle, or the conversion of triangles into quadrangles.³⁵ Piero's correspondence with the masters of Bologna and Naples and the *dictatores* of his native Campania runs parallel to the scientific correspondence of Frederick and his philosophers with scholars in Italy and Mohammedan lands.

So far as Italy is concerned, the outstanding scientific genius of the thirteenth century is undoubtedly the mathematician Leonard of Pisa.³⁶ Beyond the fact of his African education, and his "sovereign possession of the whole mathematical knowledge of his own and every preceding generation,"³⁷ his personal history is unknown; but though he resided at Pisa, he was well known to Frederick and the philosophers of his court, to whom his extant works are in large measure dedicated. It is Michael Scot who in 1228 receives from Leonard's hands the revised edition of his epoch-making treatise on the *Abacus*, first issued in 1202.³⁸ Already Master John of Palermo had accompanied Leonard into the emperor's presence and proposed questions involving quadratic and cubic equations, the answers to which are found in the *Flos* and *Liber quadratorum*.³⁹ Like the solutions of various problems submitted to Leonard by Master Theodore, these are designed to illustrate method rather than to form a systematic treatise. The *Liber quadratorum* is directed to the emperor, who has himself deigned to read the treatise on the *Abacus* and to hear the discussion of subtle problems of arithmetic and geometry, such as those once propounded in his presence by Master John.⁴⁰

³⁴ Niese, in *Historische Zeitschrift*, cviii. 501, 523. Those who doubt Piero's authorship of the original constitutions admit his influence on their style as we have them: e. g., Garufi, in *Studi medioevali*, ii. 105, note.

³⁵ Poem printed by Huillard-Bréholles, *Pierre de la Vigne*, p. 414.

³⁶ Cantor, ii, cc. 41, 42; S. Günther, *Geschichte der Mathematik* (Leipzig, 1908), i, c. 15.

³⁷ Günther, p. 258.

³⁸ *Scritti*, i. 1.

³⁹ *Scritti*, ii. 227-283. The date 1225 which heads the *Liber quadratorum* has perplexed historians, since Frederick first visited Pisa in the following year. Eneström has tried to reconcile the difficulties by placing the first meeting elsewhere: *B. M.*, ix. 72 (1908).

⁴⁰ *Scritti*, ii. 253.

Relations with other scholars of northern Italy seem to have concerned chiefly matters of law or literature, as Niese has well brought out,⁴¹ but we should not overlook the treatise on the hygiene of a crusading army dedicated to Frederick by Adam, chanter of Cremona, in 1227 and recently brought to light by Sudhoff.⁴²

It is characteristic of Frederick's strongly personal policy that the intellectual life of his kingdom centres in his court rather than in universities, and that the southern universities in his reign show little vigor of life and leadership. His absolute and paternal ideas of government left no place for independent corporations of masters and students living the free and turbulent life of the northern *studia*. So Salerno, which had grown to eminence as a school of medicine without the aid of prince or pope, found itself tied down by royal statute in 1231 as part of a comprehensive regulation of the practice of medicine, surgery, and pharmacy throughout the kingdom of Sicily, issued in the interests of bureaucratic administration rather than of university development. The course of study is laid down by law, and royal officers are to be present at the examinations.⁴³ A similar bureaucratic purpose runs through the statutes establishing the University of Naples in 1224 and reforming it in 1234 and 1239. Frederick needed trained public servants, and he preferred to have them brought up in his own kingdom rather than in Bologna and other Guelfic cities of the North. Although the new university was to comprise all the fields of study then current, its strength lay in law and rhetorical composition, and it is no accident that the masters whose names have reached us are chiefly jurists and grammarians, closely connected with the judges and clerks of the royal *curia*.⁴⁴

⁴¹ *Historische Zeitschrift*, cviii. 513 ff.

⁴² F. Hönger, *Aertliche Verhaltensmassregeln auf dem Heerzug ins heilige Land für Kaiser Friedrich II. geschrieben von Adam von Cremona* (Leipzig diss., 1913).

⁴³ Constitutions in Huillard-Bréholles, iv. 150 ff., 235; Greek text, ed. Sudhoff, in *Mitteilungen zur Geschichte der Medizin*, xiii. 180 (1914). See Rashdall, *Universities*, i. 83 ff.; and the commentary of A. Bäumer, *Die Aertzlege-setzgebung Kaiser Friedrichs II* (Leipzig, 1911).

⁴⁴ See the principal documents concerning the beginnings of the university in Huillard-Bréholles, ii. 450, iv. 497, v. 493-496; and the discussion in Denifle, *Die Universitäten*, i. 452-456. A much-needed study of its early history is promised by

Nevertheless we read of a professor of natural philosophy, Master Arnold the Catalan, who taught the courses of the stars and the nature of the elements but was unable to predict his own sudden death, which occurred "as he was lecturing on the soul," very likely in the midst of a commentary on the *De anima* of Aristotle.⁴⁵ No less a person than Thomas Aquinas began his study of natural philosophy at Naples, under an Irish master, one Petrus de Hibernia, who is later found holding a disputation at King Manfred's court.⁴⁶

Frederick's patronage of learning was not limited to Christian scholars. The Jewish translator of the logical commentary of Averroës and Ptolemy's *Almagest*, Jacob Anatoli, praises this "friend of wisdom and its votaries" for pecuniary support, and even hopes the Messiah may come in this reign; his versions into Hebrew, begun in Provence, were continued at Naples in 1232 and brought him into relations with Michael Scot as well as the emperor.⁴⁷ A Spanish Jew, the encyclopedist Jehuda ben Solomon

E. Sthamer. Two masters connected with the university in this period are the subjects of recent monographs: G. Ferretti, "Roffredo Epifanio da Benevento," in *Studi medioevali*, iii. 230-275 (1909); and F. Torraca, "Maestro Terrisio di Atina," in *Archivio storico napoletano*, xxxvi. 231-253 (1911). Another professor of grammar, Walter of Ascoli, has left an etymological cyclopaedia entitled *Dedignomion*, or *Summa derivationum*, or *Speculum artis grammaticae*, based on Isidore and Hugutio. I have used MS. 449 at Laon and MS. Vat. lat. 1500 of the Vatican, both ca. 1300; there is a later copy at the University of Bologna, MS. 1515 (2832). The Laon manuscript was ascribed to Walter, archbishop of Palermo in the twelfth century (*Catalogue*, p. 238), but 'Gualterius Hesculanus' appears clearly in the preface, and a further sentence printed by Morelli, *Codices MSS. Latini bibliothecae Nanianae* (Venice, 1726), p. 160, states that the book was begun at Bologna in 1229 and afterward completed at Naples. Walter is probably the 'Magister G[ualterius] grammaticus,' professor at Naples, whose death is lamented in a letter of Piero della Vigna (*Epp.*, iv, no. 8; Huillard-Bréholles, *Pierre de la Vigne*, p. 394). In the Laon MS. the *Dedignomion* is followed by the notes of another southern grammarian, Anellus de Gaieta.

⁴⁵ See the letter of condolence of Master Terrisio, published by Paolucci in the *Atti* of the Palermo Academy, iv. 44 (1896); and by Torraca in the article just cited, p. 247.

⁴⁶ Denifle, *Universitätsden*, i. 456 ff.; Baeumker, "Petrus de Hibernia," in Munich *Sitzungsberichte*, 1920; Grabmann, in *Philosophisches Jahrbuch*, xxxiii. 347-362 (1920); infra, n. 138.

⁴⁷ Renan, in *Histoire littéraire*, xxvii. 580-589; Steinschneider, *H. U.*, pp. 58-61, 523; Huillard-Bréholles, iv. 382, n.

Cohen, was in correspondence with one of the court philosophers at the age of eighteen, coming later to Italy, where he met the emperor and is found in Tuscany in 1247.⁴⁸ Through these or others Frederick had some knowledge of Maimonides, whose *Guide for the Perplexed* seems to have been translated into Latin in southern Italy in this period.⁴⁹

Whether eminent Mohammedan scholars actually resided at Frederick's court, is a question which cannot be answered from the information at our disposal. His colony of Saracens at Lucera⁵⁰ and his well known tolerance of the infidel combined with the environment of his youth and his semi-oriental habits of life to spread stories that he preferred to surround himself with Moslem rather than Christian influences, in learning as in everything else.⁵¹ That he was friendly to the learning of Islam appears from the various questionnaires which, as we shall see, he sent out to Mohammedan rulers, partly as puzzles, partly in a real search for knowledge. His crusade led to political and commercial relations with the sultan of Egypt which lasted throughout his reign, while the commercial treaty of 1231 with the ruler of Tunis was followed by the establishment of a Sicilian consulate at Tunis and a series of diplomatic missions of various sorts.⁵² Such missions were regularly the occasion of an exchange of presents, and it was well understood that the emperor valued a book,

⁴⁸ Steinschneider, *H. U.*, pp. 1-3, 164, 507; idem, *Verzeichniss der hebräischen Handschriften der königlichen Bibliothek zu Berlin*, ii. 121-126; and in *Z. M. Ph.*, xxxi, 2, pp. 106 ff. On Jewish culture under Frederick, see M. Güdemann, *Geschichte des Erziehungswesens der Juden in Italien* (Vienna, 1884), pp. 101-107, 268 ff.; R. Straus, *Die Juden im Königreich Sizilien* (Heidelberg, 1910), pp. 79-91.

⁴⁹ Amari, iii. 705 ff.; Steinschneider, in *Hebräische Bibliographie*, vii. 62-66 (1864); idem, *H. U.*, p. 433; infra, Chapter XIII, n. 63.

⁵⁰ On which see now Egidi, in *Archivio storico napoletano*, xxxvi-xxxix.

⁵¹ Current views of Frederick's relations with the Saracen world are illustrated by Matthew Paris, *Chronica majora*, iii. 520; iv. 268, 526, 567 ff., 635; v. 60 ff., 217.

⁵² See, in general, Amari, *Musulmani*, iii. 621-655; A. Schaube, *Handelsgeschichte der romanischen Völker*, pp. 185, 302-304; Huillard-Bréholles, introduction, ch. 5; Mas Latrie, *Traité de paix avec les Arabes de l'Afrique septentrionale*, introduction, pp. 82 ff., 122-124; Blochet, "Les relations diplomatiques des Hohenstaufen avec les Sultans d'Egypte," in *Revue historique*, lxxx. 51-64 (1902); and, under the several Mohammedan rulers, the indexes to the *Regesta Imperii* and Winkelmann, *Kaiser Friedrich II.*

a rare bird, or a cunning piece of workmanship more highly than mere objects of luxury. Thus in 1232 al-Ashraf, sultan of Damascus, sent him a wonderful *planetarium*, with figures of the sun and moon marking the hours on their appointed rounds; valued at 20,000 marks, this was kept with the royal treasure at Venosa.⁵³ Frederick gave in return a white bear and a white peacock which astonished the Oriental chroniclers, much as their western contemporaries were impressed by "the marvellous beasts, such as the West had not seen or known," which Frederick had earlier received from Egypt.⁵⁴

At the end of a series of such costly exchanges, Frederick, his treasury exhausted, propounded to the sultan problems of mathematics and philosophy, the solutions of which, due to a famous scholar of Egypt,⁵⁵ came back in the sultan's own hand. While in the East Frederick asked an interview with some one learned in astronomy, and in response Sultan Malik al-Kamil sent him a most learned astronomer and mathematician surnamed al-Hanifi.⁵⁶ It will be recalled that Theodore the philosopher is said to have been first sent to the emperor by the 'caliph,' and it is he who drafts the Arabic letters to the ruler of Tunis.⁵⁷ There can be no doubt of the impression which Frederick made on the scholars of the East as one well versed in philosophy, mathematics, and the natural sciences in general;⁵⁸ but such reports, transmitted through later Arabic compilers, are too vague to throw much light on his relation to specific fields of science.

The list of scholars with whom Frederick was in contact fades

⁵³ *Chronica Regia Coloniensis* (ed. Waitz, 1880), p. 263; Huillard-Bréholles, iv. 369; cf. Winkelmann, *Kaiser Friedrich II.*, ii. 399 ff.; Wiedemann, in *Archiv für Kulturgeschichte*, xi. 485 (1914).

⁵⁴ *M. G. H., Scriptores*, xxviii. 61. Cf. the white Indian psitacus sent by the sultan: *De arte*, i, c. 23.

⁵⁵ *Revue historique*, lxxx. 60; infra, note 122.

⁵⁶ Tarih Mansuri, in *Archivio storico siciliano*, ix. 119.

⁵⁷ See notes 18, 22, above.

⁵⁸ See the passages cited by Röhricht, *Beiträge zur Geschichte der Kreuzzüge* (Berlin, 1874), i. 73 ff.; Winkelmann, *Kaiser Friedrich II.*, ii. 137, n. 3. Frederick's fame in the East is further illustrated by the eulogy of Theodore Lascaris: Pappadopoulos, *Théodore II Lascaris* (Paris, 1908), pp. 183-189; *Boissart*, ii. 404-413 (1912).

into a penumbra of mythical attributions and romantic tales, interesting at least as showing the reputation which the emperor and his court acquired in the field of learning and literature.⁵⁹ Thus *Le régime du corps* of Aldebrandino of Siena, written in 1256 for Countess Beatrice of Provence, appears in certain later manuscripts as translated in 1234 "from Greek into Latin and from Latin into French" at the request of "Frederick formerly emperor of Rome."⁶⁰ The famous letter of Prester John concerning the marvels of the East, which in the Latin original is sent to the Greek emperor Manuel, is in its French form addressed to "Fedri l'empereour de Rome,"⁶¹ as the mythical account of Alexander's conquests in Central Asia is directed to his philosopher Theodore.⁶² The French prophecies of Merlin profess to have been compiled at the desire of Frederick and then turned into Arabic as a present to the Sultan of Egypt,⁶³ while the romance of *Sid-rach* purports to have been brought from Tunis for Frederick and turned into Latin by Friar Roger of Palermo.⁶⁴ A medical treatise is said to have been translated for the emperor in 1212 with the aid of Gerard of Cremona, who died twenty-five years earlier.⁶⁵

The nature of the scientific interests of Frederick's court has by this time become in some measure apparent. For one thing, he was deeply interested in all kinds of animals, collecting a menagerie which followed him about Italy and even into Germany. In November, 1231, he came to Ravenna "with many animals unknown to Italy: elephants, dromedaries, camels, panthers, gerfalcons, lions, leopards, white falcons, and bearded

⁵⁹ Cf. Langlois, *La connaissance de la nature au moyen âge*, p. 191.

⁶⁰ *Le régime du corps de Maître Aldebrandin de Siennne*, ed. L. Landouzy and R. Pépin (Paris, 1911), pp. xxxii, lv.

⁶¹ See, for the Latin text, the various studies of F. Zarncke; and, for the French version, Ruteboeuf, ed. Jubinal (1875), iii. 355; P. Meyer, in *Romania*, xv. 177, xxxix. 271. The reference may be to Frederick Barbarossa: R. Köhler, *Romania*, v. 76; supra, Chapter X, n. 173. On Frederick II and Prester John see the *Cento Novelle Antiche*, no. 1.

⁶² Sudhoff, in *Archiv für die Geschichte der Medizin*, ix. 9; Steinschneider, in *Hebräische Bibliographie*, viii. 41.

⁶³ H. L. D. Ward, *Catalogue of Romances in the British Museum*, i. 371 ff., 905.

⁶⁴ *Ibid.*, i. 904; *Histoire littéraire*, xxxi. 288; Langlois, p. 204.

⁶⁵ Steinschneider, *H. U.*, p. 793.

owls.”⁶⁶ Five years later a similar procession passed through Parma, to the delight of a boy of fifteen later known as Salimbene.⁶⁷ The elephant, a present from the sultan, stayed in Ghibelline Cremona, where he was put through his paces for the Earl of Cornwall⁶⁸ and died thirteen years later “full of humors,” amid the popular expectation that his bones would ultimately turn into ivory.⁶⁹ In 1245 the monks of Santo Zeno at Verona, in extending their hospitality to the emperor, had to entertain with him an elephant, five leopards, and twenty-four camels.⁷⁰ The camels were used for transport and were even taken over the Alps, with monkeys and leopards, to the wonder of the untravelled Germans.⁷¹ Another marvel of the collection was a giraffe from the sultan, the first to appear in mediaeval Europe.⁷² Throughout runs the motif of ivory, apes, and peacocks from the East, as old as Nineveh and Tyre and as new as the modern ‘Zoo,’ with the touch of the thirteenth century seen in the elephant which Matthew Paris thought rare enough to preserve in a special drawing in his history,⁷³ and the lion which Villard de Honnecourt saw on his travels and carefully labelled in his sketchbook, “drawn from life”!⁷⁴

Frederick’s menagerie illustrates various sides of his nature — his delight in magnificence and display, his fondness for the unusual and the exotic, his joy in hunting, for which he used coursing leopards⁷⁵ and panthers as well as hawks and falcons and the

⁶⁶ Scheffer-Boichorst, *Zur Geschichte des XII. und XIII. Jahrhunderts* (Berlin, 1897), pp. 282, 286.

⁶⁷ *Cronica*, ed. Holder-Egger, pp. 92 ff.

⁶⁸ Matthew Paris, *Chronica majora*, iv. 166 ff.

⁶⁹ *Chronicon Placentinum*, ed. Huillard-Bréholles (Paris, 1856), p. 215.

⁷⁰ *Nuovo archivio veneto*, vi. 129.

⁷¹ Annals of Colmar, *M. G. H., Scriptores*, xvii. 189; Böhmer-Ficker, nos. 2098 a, 20973, 3475 a.

⁷² Albertus Magnus, *De animalibus*, ed. Stadler, p. 1417; Michaud, *Bibliothèque des Croisades*, iv. 436.

⁷³ *Chronica majora*, iv. 166, v. 489.

⁷⁴ “Et bien sacies que cis lions fu contrefais al vif.” *Album de Villard de Honnecourt*, plates 47, 48; cf. 52, 53 (facsimile edition published by the Bibliothèque Nationale).

⁷⁵ Böhmer-Ficker, nos. 2661, 2783, 2883, 3029. Cf. the three leopards sent to Henry III: Matthew Paris, *M. G. H., Scriptores*, xxviii. 131, 407, 409.

humbler companions of the chase — but it also fed a genuine scientific interest in animals and their habits. His *De arte venandi cum avibus*, of which more will be said below, not only deals comprehensively with all the practical phases of the art, but begins with a systematic and careful discussion of the species, structure, and habits of birds, for which the author utilizes the *De animalibus* of Aristotle, such previous treatises as he could find on the subject, and the results of his own observation and inquiry.⁷⁶ A similar interest appears in the case of horses, to whose breeding the emperor gave special attention and concerning whose diseases he ordered one of his marshals, the Calabrian knight Giordano Ruffo, to prepare under imperial supervision a treatise, which was not completed until after Frederick's death. The first western manual of the veterinary art, this was widely popular, especially in Italy, being translated into many languages and imitated by the writers of the next generation.⁷⁷ Frederick's reputation as a hunter, if not his personal inspiration to authorship, may also be seen in the little treatise on hunting of a certain Guicennas, "master in every kind of hunting by the testimony of the hunters of Lord Frederick, emperor of the Romans."⁷⁸

The medical interests of the court are well attested, though they are not known to have produced notable additions to medi-

⁷⁶ *Infra*, Chapter XIV.

⁷⁷ Edited by Molin (Padua, 1818). For manuscripts and translations, see L. Moulé, *Histoire de la médecine vétérinaire* (Paris, 1898), ii. 25-30, where some account will be found of the later Italian treatises. There are four copies at Naples, MSS. viii. D. 65-67 *bis*. See further Huillard-Bréholles, introduction, p. dxxxvi; *Romania*, xxiii. 350, xl. 353; Steinschneider, *H. U.*, p. 985. This author is probably the Jordanus de Calabria who was made castellan of Ceseno in 1239 (Richard of San Germano, *ad annum*).

⁷⁸ *Incipit liber Guicennatis de arte bersandi*. Si quis scire desideret de arte bersandi, in hoc tractatu cognoscere poterit magistratum. Huius autem artis liber vocatur Guicennas et rationabiliter vocatur Guicennas nomine cuiusdam militis Teotonici qui appellabatur Guicennas qui huius artis et libri prebuit materiam. Iste vero dominus Guicennas Teotonicus fuit magister in omni venatione et insuper summus omnium venatorum et specialiter in arte bersandi, sicut testificabantur magni barones et principes de Allemannia et maxime venatores excellentis viri domini Frederici Romanorum imperatoris. . . . Vatican, MS. Vat. lat. 5366, ff. 75 v-78 v (ca. 1300); MS. Reg. lat. 1227, ff. 66 v-70 (fifteenth century). Guicennas, who is cited by writers on falconry, is identified with Avicenna by Werth but without any reasons given (*Zeitschrift für romanische Philologie*, xiii. 10).

cal knowledge. Thus Pietro da Eboli, early in the reign, dedicated to Frederick his poem on the baths of Pozzuoli,⁷⁹ whose healing qualities the emperor was to put to proof after his illness in 1227.⁸⁰ The treatise of Adam of Cremona on the hygiene of the crusading army has already been mentioned, as has also the series of hygienic precepts formulated for the emperor by Master Theodore,⁸¹ while a similar treatise purports to be dedicated to Frederick by his 'alumnus,' Petrus Hispanus, who claims Theodore as his master. Frederick seems to have shown some anxiety concerning paralysis, and a marvellous powder was current in his name, efficacious against many "chronic ailments of the head and the stomach."⁸² An incantation for the healing of wounds was also ascribed to him.⁸³ Frederick gave careful attention to personal hygiene in such matters as blood-letting,⁸⁴ diet, and bathing; indeed his Sunday bath was a cause of much scandal to good Christians.⁸⁵ One is reminded of the slander on the Middle Ages as a thousand years without a bath!

Without astrologers Frederick's court would not have been an Italian court of the thirteenth century, when even the universities had their professors of astrology.⁸⁶ Guido of Montefeltro kept in his employ one of the most distinguished and successful

⁷⁹ For a discussion of the questions concerning this poem, see Ries, in *Mitteilungen des Instituts für österreichische Geschichtsforschung*, xxxii. 576-593 (1911), and the works there cited.

⁸⁰ Winkelmann, i. 333.

⁸¹ See notes 25 and 42, above, and for Petrus Hispanus, Harleian MS. 5218, f. 1; P. Pansier, *Collectio ophthalmologica* (Paris, 1908), vi. 108 f.; and Thorndike, ch. 58. In the Rossi MSS. recently acquired by the Vatican there are (MS. XI. 7) a series of 953 prescriptions in the name of "Maestro Bene medico dell'imperatore Federico"; and a *Libro de consigli de poveri infermi* ascribed to Michael Scot (MS. XI. 144).

⁸² Ed. Sudhoff, in *Archiv für die Geschichte der Medizin*, ix. 6, note. Cf. the 'pills of King Roger,' Worcester cathedral, MS. Q. 60, f. 88 v (*Catalogue of MSS.*, p. 141).

⁸³ Huillard-Bréholles, introduction, p. dxxxviii.

⁸⁴ Chapter XIII, n. 108.

⁸⁵ John of Winterthur, ed. Wyss (Zurich, 1856), p. 8.

⁸⁶ Cf. T. O. Wedel, "The Mediaeval Attitude toward Astrology," *Yale Studies in English*, lx, ch. 5; Novati, *Freschi e minii*, pp. 129-134; Thorndike, ii, especially ch. 67. Gerard of Sabionetta has left a register of his consultations, 1256-60: B. Boncompagni, in *Atti dell' Accademia Pontificia*, iv. 458 ff. (1851).

of mediaeval astrologers, Guido Bonatti, who is said to have directed his master's military expeditions from a campanile with the precision of a fire alarm: first bell, to arms; second, to horse; third, off to battle.⁸⁷ Ezzelino da Romano also had Bonatti among his many astrologers, along with Master Salio, canon of Padua, Riprandino of Verona, and "a long-bearded Saracen named Paul, who came from Baldach on the confines of the far East, and by his origin, appearance, and actions deserved the name of a second Balaam."⁸⁸ There is no certain evidence that Guido Bonatti resided at Frederick's court, but he tells us that he discovered the conspiracy of 1246 by the stars at Forlì and sent timely word to the emperor at Grosseto.⁸⁹ Of the emperor's astrologers we know by name only Michael Scot and Theodore, but his enemies exulted over the troop of astrologers and magicians which this devotee of Beelzebub, Ashtaroth, and other demons lost in the great defeat before Parma.⁹⁰ It is plain that much reliance was placed on such advice, even in quite personal matters.⁹¹ Scot prided himself on his successful predictions of campaigns and the avoidance of unfavorable seasons;⁹² another astrologer guided the emperor through a breach in the wall at Vicenza in 1236;⁹³ and Theodore stood on the tower of Padua in 1239 seeking a fortunate conjunction for an expedition which was ultimately turned back by an eclipse.⁹⁴ Indeed the story ran that Frederick avoided Florence because of an astrologer's prediction,

⁸⁷ Boncompagni, *Della vita e delle opere di Guido Bonatti* (Rome, 1851), pp. 6 ff.; cf. Thorndike, ii. 825-835.

⁸⁸ Boncompagni, *op. cit.*, pp. 29-32; Muratori, viii. 344, 705, xiv. 930. On Salio, see Steinschneider, *E. U.*, no. 107; Thorndike, ii. 221.

⁸⁹ Boncompagni, *Guido*, p. 24; Guido Bonatti, *Decem libri de astronomia*, tractatus iv, cons. 58. I have used the Venice edition of 1506 in the Boston Public Library. The *Census of Fifteenth Century Books owned in America* seems to be in error in listing the Augsburg edition of 1491 (Hain, 3461*), as at Brown University. On the conspiracy of 1246, see Böhmer-Ficker, no. 3547 a.

⁹⁰ Albert of Behaim, ed. Höfler, pp. 126, 128. On Frederick's devotion to astrology, see also Saba Malaspina, in Muratori, viii. 788.

⁹¹ Matthew Paris, in *M. G. H.*, *Scriptores*, xxviii. 131; cf. Scot's *Physiognomy*.

⁹² *Infra*, Chapter XIII, nn. 107, 108. Cf. Salimbene, ed. Holder-Egger, pp. 353, 360, 512, 530; *Forschungen zur deutschen Geschichte*, xviii. 486.

⁹³ Antonio Godi, in Muratori, viii. 83.

⁹⁴ Muratori, viii. 228 ff.

and recognized when it was too late that the obscure Fiorentino would be the scene of his death.⁹⁵ The literary output of the *Magna Curia* in this field is represented by Scot's three treatises, the *Physiognomy*, *Liber introductorius*, and *Liber particularis*, all dedicated to the emperor, the *Physiognomy* being designed to aid him directly in his judgment of men. Indeed Scot speaks of 'the new astrology' as proudly as writers now speak of the new chemistry or the new history.⁹⁶

With astrology there naturally went a considerable amount of astronomy, for astrology is only applied astronomy, wrongly applied as we now believe, but a thoroughly practical subject in the eyes of the later Middle Ages. The works of Michael Scot show familiarity with Ptolemy and the principal Arabic writers on astronomy, already translated in the twelfth century; and the Hebrew versions of Ptolemy and his abbreviators by Jacob Anatoli are further evidence of attention to this science. The mathematical interests of the court reach their highest expression in the relations with Leonard of Pisa, in which, it will be remembered, the emperor himself took an active part. Frederick's own work shows an acquaintance with the fundamentals of geometry, and while in the East he sought out the company of mathematicians and astronomers.⁹⁷ His castles show much interest in architecture, the towers at Capua being designed with his own hand;⁹⁸ indeed we are told that he was "skilled in all mechanical arts to which he gave himself."⁹⁹ No direct contributions to mathematical literature have, however, been connected with the Sicilian court.

To what extent studies in alchemy were pursued at Frederick's court, it is impossible to say with our present loose knowledge of the alchemical literature of the thirteenth century. The alchemical treatises ascribed to Michael Scot are uncertain enough, as we shall see in the next chapter, and the attribution of others

⁹⁵ Muratori, viii. 788.

⁹⁶ 'Qui vero hos duos libros plene noverit ac sciverit operari nomen novi astrologi optinebit': *Liber particularis*, Bodleian, MS. Canon. Misc. 555, f. 1 v.

⁹⁷ Chapter XIV, n. 107; *Archivio storico siciliano*, ix. 119.

⁹⁸ Richard of San Germano, *M. G. H., Scriptores*, xix. 372.

⁹⁹ Muratori, ix. 132, 661.

to Friar Elias may be entirely mythical;¹⁰⁰ yet there seems enough basis of fact in the case of Scot's writings to indicate some activity in this direction.

The philosophical interests of the court were strongly marked. Frederick was well trained in logic, even taking a master of dialectic with him on the crusade, and his *De arte* shows familiarity with scholastic terminology and classification. His mind, however, was in no sense formal but actively questioning, and the range of his inquiries touched far-reaching problems of the universe and the human soul, as we shall see from his questionnaires. The doctrines of Averroës were well known and often discussed at his court, so that Mohammedan writers considered him no Christian at heart;¹⁰¹ and many European contemporaries shook their heads over the current stories of his scepticism and unbelief.¹⁰²

How far the scientific life of Frederick's court was fed by new versions of the works of Aristotle and his commentators, it is not easy to say. By 1215 western Europe knew not only the logical treatises, but the *Metaphysics*, the *Ethics*, and the principal writings on natural philosophy. New versions, often with the commentaries of Averroës and Avicenna, continued to appear in the course of the thirteenth century, but few of these can be specifically connected with Sicily.¹⁰³ Roger Bacon, it is true, speaks of the appearance of Michael Scot ca. 1230, bearing "certain parts of the natural philosophy and metaphysics with the authentic commentaries," as constituting a turning-point in Aristotelian

¹⁰⁰ Thorndike, ii. 308, 335. The Vatican MS. Reg. lat. 1242, a modern MS. of 11 folios, contains 'Liber patris Rev^m Elię generalis ordinis Minorum ad Fredericum imperatorem.'

¹⁰¹ Amari, *Biblioteca Arabo-Sicula*, ii. 254; Michaud, *Histoire des croisades*, vii. 810; Röhricht, *Beiträge*, i. 73 ff.

¹⁰² E. g., Matthew Paris, *M. G. H., Scriptores*, xxviii. 147, 230, 416; Salimbene, p. 349.

¹⁰³ See, in general, Jourdain; and M. Grabmann, *Forschungen über die lateinischen Aristotelesübersetzungen des XIII. Jahrhunderts* (Münster, 1916). For the *Logic*, see Chapter XI, supra; for the *Ethics*, A. Pelzer, "Les versions latines des ouvrages de morale conservés sous le nom d'Aristote," in *Revue néo-scholastique*, xxiii, 316-341, 378-400 (1921); for the *Metaphysics*, Geyer, in *Philosophisches Jahrbuch*, xxx. 392-415 (1917); F. Pelster, in *Festgabe Baumecker*, pp. 89-118 (1923).

studies;¹⁰⁴ but this seems to be one of the occasions when the friar is speaking loosely. The only work of Aristotle first translated by Scot was the *De animalibus*, in a version made before he joined the Sicilian court, and the only new versions of texts already known which are certainly by him are the *De caelo* and *De anima*, with the commentary of Averroës.¹⁰⁵ To these should be added Scot's Latin abbreviation of Avicenna's commentary on the *De animalibus*, which is dedicated to the emperor before 1232,¹⁰⁶ and the Hebrew versions of Averroës's commentary on the *Logic* made by Jacob Anatoli for Frederick in or about that year.¹⁰⁷ At the same time other works of the Stagyrice were freely used at court. Thus Scot quotes the *Ethics* and draws largely on the *Meteorology*,¹⁰⁸ while Theodore the philosopher cites the *Rhetoric* and *Ethics*, as well as the *Secretum secretorum*.¹⁰⁹ The emperor himself, in the *De arte venandi*, draws on the pseudo-Aristotelian *Mechanics* as well as on the *De animalibus*.¹¹⁰ Nevertheless what was new in all this was Averroës rather than Aristotle, nor can we be certain, as investigation now stands, that the Sicilian school did more than give wider currency to treatises and doctrines of Averroës which had already begun to spread from Spain.

Frederick has been called "an unrestrained admirer of Aristotle,"¹¹¹ but his own writings are far from bearing this out. We

¹⁰⁴ *Opus majus*, ed. Bridges, i. 55, iii. 66; *M. G. H., Scriptores*, xxviii. 571.

¹⁰⁵ Besides Grabmann, see below, Chapter XIII.

¹⁰⁶ J. Wood Brown, *Michael Scot*, pp. 53 ff., corrected in Chapter XIII. The University of Michigan has a copy of the printed text of this version.

¹⁰⁷ See note 47, above.

¹⁰⁸ Chapter XIII, n. 78; *Revue néo-scholastique*, xxiii. 326, n. 2.

¹⁰⁹ Chapter XIV, n. 124; *Archiv für die Geschichte der Medizin*, ix. 4-8. On the new version of the *Secretum secretorum* attributed to Philip of Tripoli, see Steele, *Opera hactenus inedita Rogeri Baconi*, v, pp. xviii-xxii; and Chapter VII, supra.

¹¹⁰ Chapter XIV, n. 113.

¹¹¹ Biehringer, *Kaiser Friedrich II.* (Berlin, 1912), p. 244. Frederick's devotion to Aristotle has been argued from a letter ascribed to him which transmits new versions of Aristotle's work to some university, but I agree with most recent scholars in assigning this letter to Manfred and connecting it with the translations of the *Magna moralia* and various pseudo-Aristotelian treatises made by his direction. See Jourdain, p. 156, with French translation; Huillard-Bréholles, *Historia diplomatice*, iv. 383; Denifle and Chatelain, *Chartularium Universitatis Parisiensis*, i,

have, he says in the preface to the *De arte*, followed the prince of philosophers where required, but not in all things, for we have learned by experience that at several points he deviates from the truth. Aristotle relies too much on hearsay, and has evidently "rarely or never had experience of falconry, which we have loved and practised all our life." More than once he must be directly corrected from the emperor's observation — *non sic se habet*.

It is this experimental habit of mind, the emperor's restless desire to see and know for himself, which lies behind those *superstitiones et curiositates* at which the good Salimbene holds up his hands.¹¹² There is the story of the man whom Frederick shut up in a wine-cask to prove that the soul died with the body, and the two men whom he disembowelled in order to show the respective effects of sleep and exercise on digestion. There were the children whom he caused to be brought up in silence in order to settle the question "whether they would speak Hebrew, which was the first language, or Greek or Latin or Arabic or at least the language of their parents; but he labored in vain, for the children all died." There was the diver, Nicholas, surnamed the Fish, hero of Schiller's *Der Taucher*, whom he sent repeatedly to explore the watery fastnesses of Scylla and Charybdis, and the memory of whose exploits was handed on by the Friars Minor of Messina,¹¹³ not to mention the "other superstitions and curiosities and maledictions and incredulities and perversities and abuses" which the friar of Parma had set down in another chronicle now lost.¹¹⁴ Such again was the story of the great pike brought to the Elector Palatine in 1497, in its gills a copper ring placed there by Frederick to test the longevity of fish, and still bearing the inscription in Greek, "I am that fish which Emperor Frederick II placed in

no. 394; Böhmer-Ficker, *Regesta*, no. 4750; Schirrmacher, *Die letzten Hohenstaufen* (Göttingen, 1871), p. 624; Grabmann, *Aristotelesübersetzungen*, pp. 200–204, 237 ff.; Helene M. Arndt, *Studien zur inneren Regierungsgeschichte Manfreds* (Heidelberg, 1911), p. 149; Pelzer, in *Revue néo-scholastique*, xxiii. 319 ff.

¹¹² Ed. Holder-Egger, pp. 350–353.

¹¹³ The story appears also in Francesco Pippini (Muratori, ix. 669), Riccobaldo of Ferrara (*ibid.*, ix. 248), and Jacopo d'Acqui (*Neues Archiv*, xvii. 500).

¹¹⁴ Salimbene, ed. Holder-Egger, p. 351. On Frederick's insatiable curiosity, see also Malaspina, in Muratori, viii. 788.

this lake with his own hand the fifth day of October, 1230.”¹¹⁵ On another occasion Frederick is said to have sent messengers to Norway in order to verify the existence of a spring which turned to stone garments and other objects immersed therein.¹¹⁶ According to Albertus Magnus, Frederick had a magnet which instead of attracting iron was drawn to it.¹¹⁷

Whatever value these tales may have, the emperor's scientific habit of mind is seen best of all in his own writings. His treatise on falconry, *De arte venandi cum avibus*,¹¹⁸ is compact of personal observation of the habits of birds, especially falcons, carried on throughout a busy life of sport and study, and verified by birds and falconers brought from distant lands. Indeed, his systematic use for such inquiries of the resources of his royal administration constitutes an interesting example of the pursuit of research by governmental agencies. “Not without great expense,” he tells us, “did we call to ourselves from afar those who were expert in this art, extracting from them whatever they knew best and committing to memory their sayings and practices.” “When we crossed the sea we saw the Arabs using a hood in falconry, and their kings sent us those most skilled in this art, with many species of falcons.” The emperor not only tested the artificial incubation of hens' eggs, but, on hearing that ostrich eggs were hatched by the sun in Egypt, he had eggs and experts brought to Apulia that he might test the matter for himself. The fable that barnacle geese were hatched from barnacles he exploded by sending north for such barnacles, concluding that the story arose from ignorance of the actual nesting-places of the geese. Whether vultures find their food by sight or by smell he ascertained by seeling their eyes while their nostrils remained open. Nests, eggs, and birds were repeatedly brought to him for observation and note, and the minute accuracy of his descriptions attests the

¹¹⁵ A. Hauber, “Kaiser Friedrich der Staufer und der langlebige Fisch,” in *Archiv für Geschichte der Naturwissenschaften*, iii. 315-329 (1911), brings together the various reports but shows that the date 1230 is impossible.

¹¹⁶ The original has ‘in regione Armenie Norwegie.’ Extract from mediaeval encyclopaedia published by Delisle, in *Notices et extraits des MSS.*, xxxii, 1, p. 48; *M. G. H., Scriptores*, xxviii. 571.

¹¹⁷ *De mineralibus*, cited by Thorndike, ii. 525, n.

¹¹⁸ See Chapter XIV.

fidelity with which his observations were made. The whole of the practical portion of his *De arte* is a setting down in systematic form of the results of actual practice of the art. The author's statements are supported by facts rather than by authority or mere personal opinion, and if information is lacking no conclusion is drawn. One who reads the *De arte* through gets inevitably the impression of the work of a first-rate mind, open, inquiring, realistic, trying to see things as they are without *parti pris*, and working throughout on the basis of systematized experience. To follow this up by a course of reading in the confused and pretentious astrology of Michael Scot is to realize how far the emperor was intellectually superior to those about him.

Observation and experiment on a large scale Frederick supplemented by the questionnaire, applied not only to the scholars of his court and the experts who came at his summons, but to savants of other lands whom he could not interrogate personally. The method seems to have been to draw up a list of questions upon which the emperor could get no final or satisfactory response at home, and to send them to other rulers, most naturally the Mohammedan princes, requesting that they be submitted to the leading local scholars for answer, a procedure which assumes autocratic governments like that which Frederick himself utilized to satisfy intellectual curiosity. Such was the practice followed in the most famous instance, the so-called 'Sicilian questions' published by Amari many years ago.¹¹⁹ According to the response which has reached us, Frederick, not long before 1242, sent a series of questions to be answered by Mohammedan philosophers in Egypt, Syria, Irak, Asia Minor, and Yemen, and later to the Almohad caliph of Morocco, ar-Rashid, by whom they were forwarded, with a sum of money as the emperor's reward, to ibn Sabin, a Spanish philosopher then living at Ceuta. Refusing the money, ibn Sabin answers at some length in terms of Mohammedan orthodoxy, expressing some contempt for Frederick's attain-

¹¹⁹ M. Amari, "Questions philosophiques adressées aux savants musulmans par l'Empereur Frédéric II," in *Journal Asiatique*, fifth ser., i. 240-274 (1853); idem, *Biblioteca Arabo-Sicula*, ii. 414-419; more fully by A. F. Mehren, in *Journal Asiatique*, seventh ser., xiv. 341-454 (1879). Cf. the problems proposed by Chosroës, published by Quicherat, in *Bibliothèque de l'Ecole des Chartes*, xiv. 248-263 (1853).

ments as seen in his untechnical phraseology, and offering to set him right in a personal interview. The emperor's questions, as they are here cited in refutation, cover the eternity of matter and the immortality of the soul, the end and foundations of theology, and the number and nature of the categories — demanding always the proofs of the opinions advanced in reply. Thus: "Aristotle the sage in all his writings declares clearly the existence of the world from all eternity. If he demonstrates this, what are his arguments, and if not, what is the nature of his reasoning on this matter?" Plainly Frederick was familiar with the Aristotelian doctrines which agitated the Christian and Mohammedan worlds in the thirteenth century, indeed there was a legend that Averroës had lived at his court.¹²⁰ The very suggestion of doubt respecting immortality was enough to justify the current belief that Frederick was one of those Epicurean heretics "who make the soul die with the body."

We hear also of geometrical and astronomical problems such as the squaring of a circle's segment, solved for the emperor at Mosul; and we have another series of geometrical questions sent by one of Frederick's philosophers, in Arabic, to the young Jehuda ben Solomon Cohen in Toledo, together with the replies, at which the emperor expressed much satisfaction.¹²¹ Again we learn that in the time of al-Malik al-Kamil, sultan of Egypt (1218-38), the emperor set seven hard problems in order to test Moslem scholars. Three of these, which concern optics, have been preserved with their answers: Why do objects partly covered by water appear bent? Why does Canopus appear bigger when near the horizon, whereas the absence of moisture in the southern deserts precludes moisture as an explanation? What is the cause of the illusion of spots before the eyes? ¹²²

¹²⁰ Renan, *Averroës* (1869), pp. 254, 291.

¹²¹ Steinschneider, in *Z. M. Ph.*, xxxi, 2, pp. 106 ff. (1886); idem, *H. U.*, p. 3; idem, *Verzeichniss der hebräischen Handschriften der königlichen Bibliothek zu Berlin*, ii. 126 (1897); Suter, "Beiträge zu den Beziehungen Kaiser Friedrichs II. zu zeitgenössischen Gelehrten . . . insbesondere zu Kemäl ed-din ibn Jûnis," in *Abhandlungen zur Geschichte der Naturwissenschaften* (Erlangen, 1922), iv. 1-8.

¹²² E. Wiedemann, "Fragen aus dem Gebiet der Naturwissenschaften, gestellt von Friedrich II," in *Archiv für Kulturgeschichte*, xi. 483-485 (1914).

Another and a less technical questionnaire has been handed down to us by Michael Scot; and as it does not appear to have been hitherto published or even cited by others, it may not be uninteresting to translate it as it stands in the manuscripts: ¹²³

"When Frederick, emperor of Rome and always enlarger of the empire, had long meditated according to the order which he had established concerning the various things which are and appear to be on the earth, above, within, and beneath it, on a certain occasion he privately summoned me, Michael Scot, faithful to him among all astrologers, and secretly put to me at his pleasure a series of questions concerning the foundations of the earth and the marvels within it, as follows:

"My dearest master, we have often and in divers ways listened to questions and solutions from one and another concerning the heavenly bodies, that is the sun, moon, and fixed stars, the elements, the soul of the world, peoples pagan and Christian, and other creatures above and on the earth, such as plants and metals; yet we have heard nothing respecting those secrets which pertain to the delight of the spirit and the wisdom thereof, such as paradise, purgatory, hell, and the foundations and marvels of the earth. Wherefore we pray you, by your love of knowledge and the reverence you bear our crown, explain to us the foundations of the earth, that is to say how it is established over the abyss and how the abyss stands beneath the earth, and whether there is anything else than air and water which supports the earth, and whether it stands of itself or rests on the heavens beneath it. Also how many heavens there are and who are their rulers and principal inhabitants, and exactly how far one heaven is from another, and by how much one is greater than another, and what is beyond the last heaven if there are several; and in which heaven God is in the person of His divine majesty and how He sits on His throne, and how He is accompanied by angels and saints, and what these continually do before God. Tell us also how many abysses there are and the names of the spirits that dwell therein, and just where are hell, purgatory, and the heavenly paradise, whether under or on or above the earth [or above or in the abysses, and what is the difference between the souls who are daily borne thither and the spirits which fell from heaven; and whether one soul in the next world knows another and whether one can return to this life to speak and show one's self; and how many are the pains of hell]. Tell us also the measure of this earth by thickness and length, and the distance from the earth to the highest heaven and to the abyss, and whether there is one abyss or several; and if several how far one is from another; and whether the earth has empty spaces or is a solid body like a living stone; and how far it is from the surface of the earth down to the lower heaven.

"Likewise tell us how it happens that the waters of the sea are so bitter and the waters are salt in many places and some waters away from the sea are sweet although they all come from the living sea. Tell us too concerning the sweet waters how they continually gush forth from the earth and some-

¹²³ For the Latin text, see below, pp. 292-294.

times from stones and trees, as from vines when they are pruned in the springtime, where they have their source and how it is that certain waters come forth sweet and fresh, some clear, others turbid, others thick and gummy; for we greatly wonder at these things, knowing already that all waters come from the sea and passing through divers lands and cavities return to the sea, which is the bed and receptacle of all running waters. Hence we should like to know whether there is one place by itself which has sweet water only and one with salt water only, or whether there is one place for both kinds, and in this case how the two kinds of water are so unlike, since by reason of difference of color, taste, and movement there would seem to be two places. So, if there are two places for these waters, we wish to be informed which is the greater and which the smaller, and how the running waters in all parts of the world seem to pour forth of their superabundance continually from their source, and although their flow is copious yet they do not increase as if more were added beyond the common measure but remain constant at a flow which is uniform or nearly so. We should like to know further whence come the salt and bitter waters which gush forth in some places, and the fetid waters in many baths and pools, whether they come of themselves or from elsewhere; likewise concerning those waters which come forth warm or hot or boiling as if in a caldron on a blazing fire, whence they come and how it is that some of them are always muddy and some always clear. Also we should like to know concerning the wind which issues from many parts of the earth, and the fire which bursts from plains as well as from mountains, and likewise what produces the smoke which appears now in one place and now in another, and what causes its blasts, as is seen in the region of Sicily and Messina, as Etna, Vulcano, Lipari, and Stromboli. How comes it that a flaming fire appears not only from the earth but also in certain parts of the sea of India?

["And how is it that the soul of a living man which has passed away to another life than ours cannot be induced to return by first love or even by hate, just as if it had been nothing, nor does it seem to care at all for what it has left behind whether it be saved or lost?"]

A notable series of questions this, in spite of a certain amount of confusion and repetition which may be due to the less clear medium of Michael Scot through which they have been transmitted. Besides the previous discussions which they assume respecting astronomy, geography, and natural history, they cut to the heart of the current cosmology, which readers of Dante will recognize, with an insistent demand for exact and definite information. Just where are heaven and hell and purgatory; exactly how far is one heaven or one abyss from another; what is the structure of the earth and the explanation of its fires and waters — questions that might easily have cost Michael Scot his reputation, in spite of his boastful promise to answer them all, and may

well have led him to seek to measure the distance to heaven by means of a church tower with an apparent exactness which seems to have imposed on the emperor.¹²⁴ Astronomy and cosmology cannot avoid theology: In which heaven is God to be found, and where are the souls of the departed, and why do they not communicate with us for love or even hate? "Or even hate" — a very human touch which shows us Frederick's own passion in the midst of the eternal riddles and reminds us of that hatred for Viterbo which he would come back from Paradise to assuage.¹²⁵ And here as in the stories of Moslem writers we recognize the note of scepticism, the trace of that Epicurean heretic whose lurid figure haunts one of the thousand fiery tombs of the tenth canto of the *Inferno*.

The nature of Frederick's ultimate religious opinions lies beyond the ken of the historian, for we have no direct statements of his own beyond his general assertions of orthodoxy, against many highly colored stories from his enemies. When, however, Gregory IX accuses him of declaring that one should believe only in what is proved by the force and reason of nature,¹²⁶ the assertion falls in entirely with what we know of Frederick's habit of mind. Profoundly rationalistic, he applied the test of reason and experience to affairs of state as well as to matters of science, as the body of his Sicilian legislation abundantly testifies. When he abolishes the ordeal, his reason is that it is not in accord with nature and does not lead to truth.¹²⁷ In matters of commercial policy, "he was the first mediaeval ruler to use consistent economic principles as his standards."¹²⁸ *Immutator mirabilis*, he has none of the mediaeval horror of change. Yet it is scarcely historical to call him a modern, for he looks in both directions. He harks back to King Roger and the Mohammedan East, while

¹²⁴ See the passage printed below, Chapter XIII, n. 110.

¹²⁵ *Historische Zeitschrift*, lxxxiii. 30.

¹²⁶ Encyclical of July 1, 1239, in Huillard-Bréholles, v. 340; Böhmer-Ficker, no. 7245; Potthast, no. 10766. Frederick's reply is in Huillard-Bréholles, v. 348 (Böhmer-Ficker, nos. 2454, 2455); see also the examination of his orthodoxy in 1246, *ibid.*, vi. 426, 615 (Böhmer-Ficker, no. 3543).

¹²⁷ Hampe, in *Historische Zeitschrift*, lxxxiii. 14.

¹²⁸ Jastrow-Winter, *Deutsche Geschichte im Zeitalter der Hohenstaufen*, ii. 549.

in his many-sided patronage of learning and his free and critical spirit of inquiry he belongs rather to the Italian Renaissance. Only in part does he belong to the thirteenth century, and he was in no sense its type. He was above all an individual, *stupor mundi* to his own age, and a marvel still to ours.

Frederick's favorite son, Manfred, appears linked with his father in Dante's mention of the two illustrious heroes who, while fortune lasted, despised the merely brutal and followed humane pursuits.¹²⁹ Certainly Manfred inherited many of his father's tastes and something of the same habit of mind, and his court continued much of the scientific activity of the earlier reign.¹³⁰ He tells us that the masters of his father's court¹³¹ taught him the nature of the world and the properties of both the transient and the eternal. At the age of twenty-five he fortified himself during a severe illness with the teachings of the treatise *De pomo*,¹³² then ascribed to Aristotle, and on his recovery had it translated from Hebrew into Latin. Latin versions of the *Magna moralia* and pseudo-Aristotelian works, apparently those sent by the king to the students of Paris,¹³³ were made directly from the Greek by an official translator, Bartholomew of Messina, who also translated at Manfred's command the veterinary treatise of Hierocles.¹³⁴ Translation from the Arabic is represented by an

¹²⁹ *De vulgari eloquentia*, i, c. 12.

¹³⁰ See, in general, Schirmacher, *Die letzten Hohenstaufen*, pp. 209-216; Capasso, *Historia diplomatica regni Siciliae*, pp. 324 ff.; Helene M. Arndt, *Studien zur inneren Regierungsgeschichte Manfreds*, c. 4; O. Cartellieri, "König Manfred," in *Centenario Michele Amari* (Palermo, 1910), i. 116-138.

¹³¹ The arguments of Hampe, *Neues Archiv*, xxxvi. 231 ff., and Arndt, pp. 146 ff., that Manfred was a student at Bologna and Paris, are to me unconvincing.

¹³² Preface in Huillard-Bréholles, *Monuments de la maison de Souabe*, p. 169; Schirmacher, p. 622; Capasso, p. 112, note; Böhmer-Ficker, no. 4653. Cf. Steinschneider, *H. U.*, p. 268, who thinks it unlikely that the king himself was the translator. A copy of this version in the Biblioteca Colombina at Seville purports to have been made 'de greco in latinum' (MS. 7-6-2).

¹³³ Supra, note 111.

¹³⁴ MSS. of Hierocles at Pisa and Bologna: *Studi italiani di filologia classica*, viii. 395, xvii. 76; *Rheinisches Museum*, n. s., xlv. 377 (1891). For the pseudo-Aristotle see Grabmann, pp. 201 ff.; Foerster, *De translatione Latina Physiognomicorum* (Kiel, 1884); particularly the evidence of MS. xvii. 370 of the Biblioteca Antoniana at Padua. Another translator, Nicholas of Sicily, may belong to this group: Grabmann, p. 203.

astrological treatise, the *Centiloquium Hermetis*, turned into Latin by Stephen of Messina and also dedicated to the king,¹³⁵ and by a set of astronomical and astrological tables translated by John 'de Dumpno' and preserved in a fine codex at Madrid.¹³⁶ Manfred's knowledge of philosophy and mathematics, especially Euclid, as well as of languages, is praised by an Egyptian visitor, who dedicated to him a work on logic,¹³⁷ and a further illustration of his philosophical tastes is found in a disputation in which he asks whether members exist because of their functions or functions because of their members, the final 'determination' of this scholastic dispute being made by that *gemma magistrorum et laurea morum*, Master Petrus de Hibernia.¹³⁸

Like his father, Manfred had his menagerie, including a giraffe from the East,¹³⁹ and he also shared his father's devotion to astrology¹⁴⁰ and to sportsmanship. The *De arte venandi*, originally dedicated to Manfred, has come down to us as he revised it, with certain additions from his own observations but primarily with the aim of filling blanks in the original by the aid of his father's notes, reading and rereading the book with filial piety that he might obtain the full fruits of its science and that no scribal errors might be left to frustrate the author's purpose.¹⁴¹ This was only one of the numerous books by many hands which filled the presses of the royal library,¹⁴² including philosophical and mathematical works in Greek and Arabic, certain of which are believed

¹³⁵ Steinschneider, *E. U.*, no. 114; Thorndike, ii. 221. Many MSS., e. g., Madrid, MS. 10009, f. 225.

¹³⁶ Biblioteca Nacional, MS. 10023, ff. 1-23: 'Perfectus est interpretatio et translatio istarum portarum de arabico in latinum per Iohannem de Dumpno filium Philippi de Dumpno in civitate Panormi anno a nativitate domini nostri Iesu Christi 1262, sub laude et gloria omnipotentis Dei feliciter amen.'

¹³⁷ Djemal-Edin, in Michaud, *Bibliothèque des Croisades*, vii. 367; *Revue historique*, lxxx. 64; Suter, no. 380.

¹³⁸ Text published by Baeumker, "Petrus de Hibernia," in Munich *Sitzungsberichte*, 1920. See also Pelzer, in *Revue néo-scholastique*, 1922, pp. 355 f.

¹³⁹ Röhrich, *Beiträge*, i. 74.

¹⁴⁰ Huillard-Bréholles, introduction, p. dxxxii; Arndt, p. 151.

¹⁴¹ Chapter XIV, p. 304.

¹⁴² 'Librorum ergo volumina, quorum multifarie multisque modis distincta cyrographa diviciarum nostrarum armaria locupletant': *Chartularium Universitatis Parisiensis*, i, no. 394.

to have gone as a present to the Pope from the victorious Charles of Anjou,¹⁴³ and thus served to hand on something of the scientific interests of Manfred and of Frederick to a later age. At best, however, Manfred's court is but an echo of that of Frederick, and under the Angevins the intellectual history of Sicilian royalty enters upon a new and different period.¹⁴⁴

¹⁴³ Chapter IX, n. 35.

¹⁴⁴ On translations under Charles of Anjou, see Amari, *La guerra del Vespro Siciliano*, edition of 1886, iii. 483-489; Hartwig, in *Centralblatt für Bibliothekswesen*, iii. 185-188; Steinschneider, *E. U.*, nos. 39, 86; *Hermes*, viii. 339; de Renzi, *Collectio Salernitana*, i. 336; Thorndike, ii. 757.

CHAPTER XIII

MICHAEL SCOT¹

IN any judgment respecting the scientific activity of the court of Frederick II, much depends upon the opinion formed of Michael Scot, the emperor's astrologer, whose writings form a large part of the scientific and philosophic product of the *Magna Curia*. Condemned by Roger Bacon as "ignorant of the sciences and languages," Scot is praised by Gregory IX for his knowledge of Hebrew and Arabic, and addressed as *summe philosophe* by Leonard of Pisa, the most eminent mathematical genius of his time. Naturally enough for an astrologer, Scot early became a subject of legend, and the small body of fragmentary fact has not yet been winnowed from the mass of tradition. The elaborate biography by James Wood Brown² contains far too much of pleasing conjecture, and its insecure chronology has misled more than one subsequent writer. It may help investigation if we try to set down the ascertainable events of Scot's life and to group his works in some chronological order, as a preliminary to an examination of his treatises on astrology and his intellectual relations with the emperor.

Concerning the place and date of Scot's birth no evidence has reached us. We may, however, be sure that when Master Michael calls himself Scot³ he means a native of Scotland and not an Irishman, as the name frequently signifies in mediaeval usage. Not only did he hold benefices in Scotland,⁴ but he refused a most lucrative appointment, the archbishopric of Cashel, because he

¹ Revised from *Isis*, iv. 250-275 (1922). Cf. *American Geographical Review*, xiii. 141 f. (1923); *Mitteilungen zur Geschichte der Medizin*, xxii. 4.

² *An Enquiry into the Life and Legend of Michael Scot* (Edinburgh, 1897), followed closely in the article in the *Dictionary of National Biography*, and by Comrie in *Edinburgh Medical Journal*, July 1920; Thorndike, ii, ch. 51, is more independent.

³ 'Cui ego Michael Scottus tanquam scottatus a multis et a diversis': Bodleian, MS. Canon. Misc. 555, f. 45; *infra*, p. 294. 'Ego Michael Scotus': Jourdain, pp. 127-129; MS. Pisa 11, n. 10, below.

⁴ Bliss, *Calendar of Papal Letters*, i. 102.

was ignorant of the Irish tongue.⁵ That he knew English might be inferred from a list of Anglo-Saxon names of months which he inserts in his *Liber introductorius*, did not a similar list appear in Bede.⁶ The facts of his career place his birth somewhere in the late years of the twelfth century. Of his education we know nothing, the statements concerning his studies at Durham, Oxford, Paris, and Bologna, being mere guesses of modern writers.⁷ All that we can say is that his writings show a knowledge of the elements of Latin culture — the Bible, Augustine, the writers on the *trivium* and *quadrivium* — and that this was probably gained before he went to Spain for more special studies.

We must likewise dismiss as entirely baseless Brown's chapter which makes Scot tutor of the young Frederick II and author of various works composed in Sicily in 1209 and 1210. The sole foundation for this elaborate construction is the misreading as 'mccx' of the 'mcc etc.' of a Vatican codex of the *Abbreviatio Avicenne*;⁸ and there is no evidence connecting Scot with Sicily until many years later.

The first specific date in Scot's career is 18 August 1217, when he completed at Toledo his translation of al-Bitrogi (Alpetragius) *On the Sphere*.⁹ He had plainly been for some time in Spain and

⁵ *Ibid.*, i. 98.

⁶ *Nomina mensium secundum Anglicos*. Primus mensis anni Anglorum est giuli, id est januaris; 2. est solmonant, id est february; 3. est heredemonath, id est martius; 4. est turmonath, id est aprilis; 5. est thrumlei, id est maius; 6. est lidan; 7. est lydi; 8. est vendmonath; 9. est aligmonanth; 10. est gyh. Hee gentes suum annum incipiunt a medianocte nativitatis Domini et quociens sunt kalende mensium tociens solempne pulsant campanas ecclesie maiori post complementum officii matutini cum interpellatione et omnes gentes summa devocione vadunt ad eandem ecclesiam portantes aliquid ad offerendum.' Cod. Lat. Monacensis 10268, f. 71 v. Cf. Bede, *De temporum ratione*, ch. 15.

⁷ The story that Michael taught theology at Paris may arise from a confusion with Master Matthew Scot, who appears there in 1218. *Chartularium*, i. 85.

⁸ See the facsimile in Brown, p. 55. Monsignore Auguste Pelzer of the Vatican Library informs me, as I had conjectured from the facsimile, that 'mcc etc.' is the necessary reading of the original. I find that Sir John Sandys had also questioned Brown's reading, but without rejecting the inferences from it (*History of Classical Scholarship**, i. 566). Thorndike accepts the date. The MS. is Vat. lat. 4428.

⁹ Jourdain, p. 133, where one MS. has the Christian and one the Spanish era. This is confirmed by MS. Madrid 10053 (ca. 1300, formerly in the chapter library at Toledo), f. 156 v.: 'Perfectus est liber Avenalpetraug a magistro Michael

gained something of that acquaintance with Arabic which was to serve him later. The next point in Scot's biography is 21 October 1220, when he appears at Bologna, living in the house of the widow of Alberto Gallo and describing in detail a neighbor's case of calcified fibroid tumor.¹⁰ The sworn note to this effect which he appends to certain copies of the *De animalibus* gives the year as 1221, but the day of the week given shows that he is using the Pisan style, as in his later works.¹¹ This is his first appearance in Italy, and it should be remarked that Frederick II was in the neighborhood of Bologna at the same time,¹² although we have no evidence that Scot was then in the emperor's service.

From 1224 to 1227 the papal registers show that Scot had the active favor of Pope Honorius III and his successor, Gregory IX. This interesting series of entries begins 16 January 1224 with a letter from Honorius III recommending Scot to the archbishop of Canterbury as a man of eminent learning (*singularis scientia inter alios litteratos*), worthy of a benefice in that province.¹³ The church assigned yielded an insufficient income, and 18 March he received permission to hold two benefices,¹⁴ one of which appears from what follows to have been in England. His tenure of these was unaffected by his elevation the following May to the archbishopric of Cashel,¹⁵ but by 20 June he had declined this

Scotto Toleti in decimo octavo die veneris augusti hora tertia cum Abuteo levite anno incarnationis Iesu Christi 1217.' MS. Barberini Lat. 156 of the Vatican, f. 194, has 1221, but with the same day of the week and month. Steinschneider, *E. U.*, no. 84 i, gives incorrectly 1267. Cf. MS. Arsenal, 1035, where the date is 1207; Harleian MS. 1, f. 1 (1217).

¹⁰ The note is printed by Dr. M. R. James in the *Catalogue of the Manuscripts in the Library of Gonville and Caius College*, i. 112, from MS. 109; facsimile in *Edinburgh Medical Journal*, 1920, p. 56. It is also found in a thirteenth-century copy of the *De animalibus* in the manuscripts of the Convento S. Caterina at Pisa, MS. 11, f. 133-133 v (cf. *Studi italiani di filologia classica*, viii. 325), where the following is added to Dr. James' text: 'eiecit in octabis sancti Iohannis maiorem post .viii. dies post minorem.'

¹¹ Below, n. 112.

¹² Böhmer-Ficker, *Regesta imperii*, nos. 1176-94.

¹³ Pressutti, *Regesta Honorii Pape III*, no. 4682; *Chartularium Universitatis Parisiensis*, i, no. 48; Brown, p. 275; Bliss, *Calendar of Papal Letters*, i. 94.

¹⁴ Pressutti, no. 4871; Bliss, i. 96.

¹⁵ Pressutti, no. 5025; not in Bliss. A papal letter on the same subject, apparently to Henry III, is printed in my paper on "Two Roman Formularies in Philadelphia," in the *Miscellanea Ehrle* (1924).

preferment because of his ignorance of Irish.¹⁶ 9 May 1225 he is allowed to hold an additional benefice in England and two in Scotland.¹⁷ 28 April 1227 Gregory IX, shortly after his accession, urges Michael's claims on the archbishop of Canterbury as one who had pursued learning since boyhood and added a knowledge of Hebrew and Arabic to his wide familiarity with Latin learning.¹⁸

In 1228, or, since we are in Pisa, more probably in 1227, falls the dedication to Scot of the revised edition of the great treatise of Leonard of Pisa on the abacus, of which Scot had solicited a copy from the author.¹⁹ As Leonard was in relations with Frederick II and the philosophers of his entourage as early as 1225 or 1226,²⁰ Scot may have already become connected with the emperor's court. In any event, Scot disappears from the papal registers after 28 April 1227, and no long time can have elapsed before he joined the court of Frederick II, with which he is thereafter identified. Contemporaries call him Frederick's astrologer and recount various stories of his skill, even to the prediction of the place of the emperor's death,²¹ while Scot himself mentions instances of his prophesying from the stars the results of Frederick's military operations.²² Scot's later works are dedicated to the emperor, and one of them, the *Abbreviatio Avicenne*, was kept in the emperor's library in 1232. The loss of the imperial registers, save for a fragment of 1239-40, prevents our tracing details of his activity at the court, except for some indications in Scot's own writings to which we shall come below. His career is thus summed up by a poet of the court:

¹⁶ Pressutti, no. 5052; Bliss, i. 98. ¹⁷ Pressutti, no. 5470; Bliss, i. 102.

¹⁸ Auvray, *Registres de Grégoire IX*, no. 61; *Charthularium Universitatis Parisiensis*, i, no. 54; Potthast, *Regesta*, no. 7888; Bliss, i. 117.

¹⁹ Boncompagni, *Scritti di Leonardo Pisano* (Rome, 1857), i. 1; for the date 1228, see Boncompagni in *Atti dei Lincei*, first series, v. 73 f. (1851); Cantor, ii. 7.

²⁰ *Scritti*, ii. 253. On the chronological difficulties, see Eneström, in *B. M.*, ix. 72 f. (1908).

²¹ Salimbene, ed. Holder-Egger, pp. 353, 361, 512, 530; Riccobaldi of Ferrara, in Muratori, *Scriptores*, ix. 128; Francesco Pipini, *ibid.*, ix. 660, 670.

²² 'Et ut apercius hec dicta pateant, recordamur duarum questionum inter alias principis volentis ire super duas civitates sibi rebelles,' followed by the observations, with diagrams, and Scot's deductions: *Liber introductorius*, MS. n. a. lat. 1401, f. 99 v.

Qui fuit astrorum scrutator, qui fuit augur,
Qui fuit ariolus, et qui fuit alter Apollo.²²

If we could accept the statement of a note which accompanies this prophecy in one manuscript, Scot was at Bologna in 1231, where he was consulted by the *podestà* and notables concerning the fate of the Lombard cities and replied with a famous set of verses predicting the fate of each. The references to the events of 1236 and following are, however, so specific as to indicate that this *Vaticinium* was written subsequently and ascribed to Scot,²⁴ who was known to have made definite predictions foretelling the emperor's triumph over his enemies.²⁵

The date of Scot's own death is apparently fixed by certain verses of Henry of Avranches dedicated to the emperor shortly before his last return to Italy from Germany early in 1236.²⁶ Scot is here mentioned as one who has passed, apparently recently, into eternal silence, and there is no reason to doubt the testimony of a court poet then in the emperor's following. If we attach any weight to the Paris manuscript of Scot's *Vaticinium*, he was in Germany with the emperor on this journey, and would thus have met his death there.²⁷ The story ran that he was killed at mass by the falling of a stone, in spite of a metal headpiece by which he had sought to protect himself.²⁸

The only reason for seeking to place Scot's death later is connected with the dates of his writings. The manuscripts of his *Liber particularis* bear a title *tempore domini pape Innocentii quarti* (1243-54), and since the preface refers to an event of 1228 this cannot be explained away by Brown as a slip for Innocent III; but, as there is no reference to this pope in the text, we may have no more than the guess of a scribe, itself inconsistent with

²² *Forschungen zur deutschen Geschichte*, xviii. 486.

²⁴ Holder-Egger, in *Neues Archiv*, xxx. 349-377, where the text of the verses appears as well as in his edition of Salimbene, p. 361. Cf. Winkelmann, *Kaiser Friedrich II*, ii. 323, n. A note in MS. lat. n. a. 1401, f. 124 v., not used by Holder-Egger, states that the verses were recited to the emperor by Scot before the departure from Germany: Delisle, *Catalogue du fonds de La Trémoille*, p. 43.

²⁵ Poem of Henry of Avranches: *Forschungen zur deutschen Geschichte*, xviii. 486.

²⁶ *Ibid.*

²⁷ *Catalogue du fonds de La Trémoille*, p. 43, cited above.

²⁸ Pipini in Muratori, ix. 670.

a closing verse of 1256.²⁹ The commentary on the *Sphere* of John of Sacrobosco must be subsequent to the date of that work, often stated as 1256, but the facts of Sacrobosco's life have not been sufficiently investigated, and Scot's authorship is too uncertain to permit drawing any decisive conclusion. I see no reason for identifying him with the clerk Michael of Cornwall, 'dictus Scotus,' who appears at Chartres in 1252-54.³⁰

Scot's writings are, with one exception, undated in the form in which they have reached us. They can, however, be distinguished into two main groups, corresponding to the two chief periods of his activity, the Spanish and the Sicilian. Speaking broadly, natural philosophy predominates in the earlier period, and astrology in the later. Let us consider them in this order.

I. The only dated work is the translation of al-Bitrogī, completed at Toledo 18 August 1217. This treatise, which develops Aristotle's theory of homocentric spheres against the eccentrics and epicycles of Ptolemy, was of considerable importance as a source of Aristotelian cosmology in the thirteenth century, and Scot's version seems to have been the medium through which it was known to Roger Bacon and others.³¹

Scot's version of Aristotle's *Historia animalium* is in four of the manuscripts dated at Toledo.³² His authorship is clear from a memorandum inserted in his own copy and preserved in two extant manuscripts.³³ This note, dated at Bologna 21 October 1220, shows that the work must have been completed before this date, and thus strengthens the statement that this version belongs to the Toletan period of Scot's life. As the manuscripts lack a dedication, the words *ad Caesarem* added in current usage would appear to rest on a confusion with the *Abbreviatio Avicenne*. Whether the translation was made from the Hebrew or from the

²⁹ This verse is also found in the *Vaticinium* of John of Toledo: *Neues Archiv* xxx. 353, note.

³⁰ Clerval, *Les écoles de Chartres*, pp. 350 f.

³¹ For the date and manuscripts, see above, n. 9; for the contents, Duhem, iii. 241 ff., 327 f.

³² Merton College, MS. 278; Cues, MS. 182 (Grabmann, *Aristotelesübersetzungen*, p. 187); Laurentian, Plut. XIII, sin., 9 (Bandini, iv. 109); Cracow, MS. 653.

³³ See above, n. 10.

Arabic has been a matter of dispute;³⁴ in any event a Jewish interpreter³⁵ seems to have been used. The version is closely literal, so that it has even been used for reconstructing the Greek original;³⁶ but there are also numerous errors, which were repeated by Albertus Magnus in using it.³⁷ Here, as in the usual Arabic tradition of the work, the *Historia animalium* consists of nineteen books, including not only the *De animalibus historia*, with the spurious tenth book, but the *De partibus animalium* and the *De generatione animalium*. For all of these Scot's version was the first and remained in use till the fifteenth century.³⁸

In the case of other works of Aristotle the question is complicated by the fact that there was more than one version from the Arabic in circulation in the thirteenth century, as well as by their relation to the accompanying commentary of Averroës. The one entirely clear case is the *De caelo et mundo*, to which Scot has prefixed a preface addressed to Stephen of Provins, doubtless the canon of Reims named by Gregory IX in 1231 as one of the commission to examine and purge the newly translated works of Aristotle on natural science.³⁹ This version is subsequent to 1217, as it cites Scot's translation of al-Bitrogî. It is altogether likely that Scot is the author of the version of the *De anima* which, with the commentary of Averroës, regularly accompanies his *De caelo*

³⁴ See especially Wüstenfeld, pp. 101-106 (1877); Steinschneider, *H. U.*, pp. 479-483.

³⁵ Roger Bacon, *Compendium studii*, ed. Brewer, p. 472.

³⁶ Rudberg, in *Eranos*, ix. 92 ff.

³⁷ H. Stadler, *Albertus Magnus de animalibus* (Münster, 1916), i, p. xii; id., in *Archiv für die Geschichte der Naturwissenschaften*, vi. 387-393 (1913); Dittmeyer, *Guilelmi Moerbekensis translatio commentationis Aristotelicae De generatione animalium* (Dillingen programme, 1914).

³⁸ See in general, Grabmann, *Forschungen über die lateinischen Aristotelesübersetzungen des XIII. Jahrhunderts*, pp. 185-187, and the literature there cited. This version passed quickly into use. Before Albertus Magnus we find it cited by Philip de Grève, 1228-36 (Minges, in *Philosophisches Jahrbuch*, xxvii. 28); and by Bartholomew Anglicus, ca. 1240 (Grabmann, p. 42).

³⁹ Jourdain, p. 127 f.; Grabmann, p. 175; Renan, *Averroës* (Paris, 1869), p. 206; bull of Gregory in *Chartularium Universitatis Parisiensis*, i, no. 87. Other manuscripts are at Erfurt, F. 351; at Durham, C. I. 17; at the University of Paris, MS. 601 (infra, n. 63); at the Vatican, Vat. lat. 2184, f. 1. On the various persons known as Étienne de Provins in this period, see my paper, "Two Roman Formularies," in the *Miscellanea Ehrle*.

in the manuscripts.⁴⁰ Translations of the *Physics*, *Metaphysics*, and *Ethics* have been ascribed to Scot, but without sufficient evidence.⁴¹ The argument is somewhat stronger for certain other commentaries of Averroës, coinciding as they do with Scot's *Questiones Nicolai*,⁴² but the matter is not yet clear. In any event Scot's rôle was merely that of translator; it was Averroës *che il gran commento feol*⁴³

Two philosophic treatises of Scot probably belong to the Spanish period. One, a *Divisio philosophica*, or classification of philosophical knowledge, preserved only in fragments by Vincent of Beauvais, is based in considerable measure upon Dominicus Gundisalvi, who worked in Spain in the twelfth century.⁴⁴ The other, known in extracts as the *Questiones Nicolai peripatetici*, is definitely assigned by Albertus Magnus to Scot,⁴⁵ who here seems to take shelter in anonymity in order to preach strong Averroism.⁴⁶

II. From the Sicilian period of Scot's activity we have, first of all, the *Abbreviatio Avicenne de animalibus*, dedicated to Frederick II as emperor. We have already seen that this cannot be dated 1210,⁴⁷ as Brown fondly thought; all that we can say is that it was anterior, and probably not long anterior, to the copy made from the emperor's original by Henry of Cologne at Melfi 9 August 1232.⁴⁸ Frederick's keen interest in animals, and especially in birds, is a sufficient explanation of its origin.⁴⁹

⁴⁰ Hauréau, *Philosophie scolastique* (1880), ii, 1, p. 125; Grabmann, p. 198.

⁴¹ Jourdain, pp. 128, 141 f., 144; Grabmann, pp. 172, 212, 215, 217. Note that the *Ethics* is cited in the preface to the *Liber introductorius* (see below), and the *Metaphysics* in the commentary on Sacrobosco.

⁴² Renan, *Averroës*, p. 205.

⁴³ Dante, *Inferno*, iv, line 144.

⁴⁴ Baur, *Dominicus Gundissalinus De divisione philosophiae* (*Beiträge*, iv, nos. 2-3), pp. 364-367, 398-400; supra, Chapter I.

⁴⁵ 'Feda dicta inveniuntur in libro illo qui dicitur *Questiones Nicolai peripatetici*. Consuevi dicere quod Nicolaus non fecit librum illum sed Michael Scotus, qui in rei veritate nescivit naturas nec bene intellexit libros Aristotilis.' *Opera* (ed. Paris, 1890), iv. 697. Birkenmajer is preparing an edition of these *Questiones*.

⁴⁶ Hauréau, *Philosophie scolastique* (1880), ii, 1, p. 127; Renan, *Averroës*, pp. 209 f.; Duhem, iii. 245 f., 339, 346 f.

⁴⁷ Supra, n. 8.

⁴⁸ Huillard-Bréholles, *Historia diplomatica*, iv. 381.

⁴⁹ See the next chapter.

The most ambitious of Scot's works belong to this period, the series of treatises on astrology made up of the *Liber introductorius*, the *Liber particularis*, and the *Physionomia*. In their final form these are subsequent to 16 July 1228, since the general preface refers to Francis of Assisi as already a saint.⁵⁰ They are dedicated to the emperor, whom they mention in the text, and, as we shall see, contain in part answers to specific questions asked by him.

III. The remaining works attributed to Scot are more or less doubtful. The court of Frederick II became a peg on which to hang all sorts of fictitious attributions,⁵¹ and Scot's popular reputation could easily lead to connecting his name with the works of others.

So of Scot as an alchemist it is hard to speak with any certainty amid the mass of false attributions which accompany the alchemical literature of the later Middle Ages.⁵² That he passed as an alchemist is clear from the ascriptions of several manuscripts, notably a list of alchemical writers preserved in a Palermo codex,⁵³ and his familiarity with alchemical doctrine is seen in the chapter from his own *Liber particularis* printed below.⁵⁴ The question is whether he wrote actual treatises on the subject, and, if so, whether any of these can be identified. A definite answer must await the sifting of the confused and uncertain manuscript material. Meanwhile the most promising evidence seems to be afforded by a few pages in the library of Corpus Christi College,

⁵⁰ 'Quandoque sine vestibus cum alis, ut seraphim ad beatum Franciscum et Michael quando pugnavit cum dracone et quando consignavit in Monte Gargano ecclesiam, propter quod hodie dicitur Mons Angeli qui est prope Romam versus Apuliam': Munich, Cod. lat. 10268, f. 9 v; N. a. lat. 1401, f. 22, omitting what follows 'ecclesiam.'

⁵¹ Ch. V. Langlois, *La connaissance de la nature et du monde au moyen âge* (Paris, 1911), pp. 190-192; supra, Chapter XII, notes 59-65.

⁵² See Brown, ch. 4, and the more sceptical pages of Thorndike, ii. 335-337. E. von Lippmann, *Entstehung und Ausbreitung der Alchemie* (Berlin, 1919), does not discuss Scot's alchemical writings.

⁵³ G. di Marzo, *I MSS. della Biblioteca comunale di Palermo* (1878), iii. 237. This MS. (4Q q. A 10) is cited by Brown, p. 79, as in private hands.

⁵⁴ P. 295. The reference of the *Dictionary of National Biography* to Scot's *magisterium* in MS. Bodley 44 is an error.

Oxford.⁵⁵ Here we have not only the attribution of the *explicit* but the frequent mention of Michael in the body of the work, much as in his other works: 'et ego Michael Scotus multociens sum expertus et semper veracem inveni.'⁵⁶ The work purports to be dedicated to Theophilus king of the Saracens, but Friar Elias is mentioned in the second person as Michael's associate in experiments.⁵⁷ Besides the transmarine writers, Hebrew, Arabic, Saracen, Armenian, and other, whom the author has read, he cites specifically Barbaranus the Saracen of Aleppo (Halaph), Theodosius the Saracen of 'Cunusani,' Medibibaz the Saracen of Africa, and Master Jacob the Jew at Catania⁵⁸ (?). He himself has translated a book explaining how to treat salts in alchemy.⁵⁹ Besides various eastern substances he mentions alum of Aleppo and gum of Calabria and Montpellier.⁶⁰ The milieu resembles that of Michael Scot, and so does the general style, although the material seems to have been reshaped by another hand.

Similarly the notes appended to the copies of his *De animalibus* at Cambridge and Pisa indicate that Scot observed and treated diseases;⁶¹ but no works of medicine can be certainly identified

⁵⁵ MS. 125, ff. 97-100 v (ca. 1400): 'Cum animadverterem nobilem scientiam apud Latinos penitus denegatam vidi quoque neminem pervenire ad perfectionem propter nimiam confusionem in libris philosophorum que reperitur, existimavi secreta nature intelligentibus revelare, incipiens a maiori magisterio et minori que inveni de transformatione metallorum et de permutatione eorum qualiter substantia unius in alterum permutetur. . . . Septem sunt planetarum (f. 97 v) . . . sales qui operantur in solem. Explicit tractatus magistri Michaelis Scoti de alkemia.'

⁵⁶ F. 100.

⁵⁷ F. 97 v: 'Et que in hac arte sunt necessaria tibi, frater Helya, diligenter et subtiliter enarravi.' F. 98: 'Et ego magister Michael Scotus sic operatus sum solem et docui te, frater Elia, operari et tu mihi sepius retulisti te instabiliter multis vicibus operasse.' F. 98 v: 'Prout Michael predictus probavi et docui, frater Helya.' F. 99 v: 'Sed ego vidi ipsam fieri a fratre Helya et ego multociens sum expertus.'

⁵⁸ F. 100: 'Et ego vidi istam operationem fieri apud Cartanam a magistro Iacobo iudeo et ego postea multociens probavi.'

⁵⁹ F. 97 v: 'Prout in aliquo libro a me translato dixi quomodo de salibus oportet in arte alkemie operari.'

⁶⁰ F. 99: 'Et hoc facit cum alumine de Halaph et cum quadam gumma que in partibus Kalabrie invenitur et in Monte Pessulano.'

⁶¹ James, *Descriptive Catalogue of MSS. in the Library of Gonville and Caius College*, i. 112 f.; Pisa, Convento S. Caterina, MS. 11. See above, n. 10.

beyond the *Physionomia* and the *De urinis* which forms a part of it. For the pills and powders which passed in Scot's name there is no valid authority.⁶²

Two versions of Maimonides in a manuscript of the University of Paris⁶³ are ascribed to Michael Scot by the author of the printed catalogue, but no definite basis for this appears save the fact of their occurrence, in a different hand of the thirteenth century, in the same volume as Michael's translation of the *De caelo*. The second of these⁶⁴ is the standard Latin rendering of the *Guide to the Perplexed*, generally supposed to have been made from the Hebrew in southern Italy before ca. 1250. The first⁶⁵ discusses parables more fully than the *Guide*, and then the fourteen fundamental classes of precepts and the six hundred and thirteen commandments, but is evidently the work of some adapter, after Maimonides's death, since it is in answer to an inquiry made in the eighth year of the blessed Honorius III (24 July 1223-24). The treatise is directed in an Oriental style to a Roman, or Romanus,⁶⁶ and Michael Scot was then high in the Pope's favor and probably at the Curia. Possibly he was already in relation, as later, with Jewish translators,⁶⁷ while not concealing the knowledge of Hebrew attributed to him by the Pope.

The commentary on the *Sphera* of John of Holywood has already been mentioned apropos of the date of Scot's death. No manuscript has been cited, and the only basis for ascribing it to

⁶² For the medical literature, see Brown, pp. 149-156. The Rossi MSS. now in the Vatican contain (xi. 144) a 'Libro de consigli de poveri infermi e utile per ciascun povero medico secondo che mete Michiel Scoto astrologo del imperador Federico.'

⁶³ MS. 601. *Catalogue* (1918), p. 150.

⁶⁴ Ff. 21-103 v. On this version see Steinschneider, *H. U.*, p. 433; and especially Perles, in *Monatsschrift für Geschichte und Wissenschaft des Judenthums*, xxiv (1875).

⁶⁵ Ff. 1-20 v: 'In octavo anno gubernacionis felicitis Honorii tercii interrogasti me, potens [MS. poteritis] et humilis Romane (prolonget tibi vitam Deus et augmentet statum), quare mel non adolebatur in sacrificiis et sal valde item (?) parabatur in eisdem, ut dicitur secundo Levitici circa finem in illo versu [2, 11] . . . vel que removet difficultatem in operando et hoc constituitur (?) consuetudinalis.'

⁶⁶ A Romanus was then cardinal of S. Angelo, 1216-35, and later bishop of Porto.

⁶⁷ *Infra*, note 79.

Scot is the title of the printed edition.⁶⁸ The preface shows some similarities of phrase to the preface to the *De arte venandi* of Frederick II,⁶⁹ and the commentary recalls al-Bitrogi,⁷⁰ but there are no references to the emperor in the body of the work, and the scholastic style is quite unlike that of Scot's astrological writings, which are, indeed, professedly popular. The treatise on geomancy ascribed to Scot in a late Munich manuscript is very doubtful;⁷¹ and the *Mensa philosophica*, at times attributed to him,⁷² is clearly by another and later hand.

Scot's translations were the occasion of unfavorable judgments on the part of Roger Bacon, who declared that Scot did not really know the languages or the sciences, and that the work was chiefly done by a Jew named Andrew.⁷³ Help of this sort was usually employed by the Toletan translators;⁷⁴ whether Michael was more inaccurate than others is a question which has not been investigated.⁷⁵ On the other hand Bacon seems to ascribe too much credit to Scot as the introducer of the natural philosophy of Aristotle,⁷⁶ for, as we have seen, only one of these treatises, the

■ 'Eximii atque excellentissimi physicorum motuum cursusque syderei indagatoris Michaelis Scoti super auctorem sperae cum questionibus diligenter emendatis incipit expositio confecta Illustrissimi Imperatoris Dni. D. Federici precibus.' I have used the Bologna edition of 1495 (Hain, 14555) in the Thatcher collection in the Library of Congress.

■ 'Causa efficiens est magister Johannes de Sacrobusto et alii compositores. Causa finalis cognitio corporum celestium in se et proprietatum . . . modus agendi est quintuplex, scilicet definitivus, probativus, id est probativus, exemplorum positivus, ut legitime per se liqueat.' *Ibid.*, f. 1 v. So Frederick considers *intentio*, *utilitas*, and describes the *modus agendi* as 'prosaycus, prohemialis, et executivus, executivus vero multiplex, partim namque divisivus, partim descriptivus, partim convenientiarum et differentiarum assignativus, partim causarum inquisitivus.' Vatican, MS. Pal. lat. 1071, f. 1 v. The preface to Scot's *Liber introductorius* discusses *ars*, *genus*, *intentio*, *utilitas*, *finis*, *instrumenta*, etc.: Clm. 10268, f. 16 v; N. a. lat. 1401, f. 35. That of the *Liber luminis luminum* (Brown, pp. 81, 240) has *intentio*, *causa intentionis*, *utilitas*. Such terminology appears as early as Gundissalinus, and even in the preface to the *Euclid* of Adelard of Bath (Digby MS. 174, f. 99).

⁶⁸ Duhem, iii. 246-248, who accepts Scot's authorship.

⁶⁹ Cod. lat. 489, ff. 174-206 v (saec. xvi): *Liber geomantiae Michaelis Scoti*.

⁷⁰ As by Querfeld, p. 12.

⁷¹ *Compendium studii*, ed. Brewer, p. 472; *Opus tertium*, ed. Brewer, p. 91.

⁷² Rose, in *Hermes*, viii. 332 ff.; supra, Chapter I, n. 57.

⁷³ Save in the case of the *De animalibus*; supra, n. 37.

⁷⁴ 'A tempore Michaelis Scoti qui annis Domini 1230 transactis apparuit de-

De animalibus, was first given to the Latin world by Scot. Bacon's date 1230 has likewise been taken too literally, especially by those who have sought to connect it with the letter recommending the new versions of Aristotle to the universities, a document once ascribed to Frederick II but now generally admitted to come from Manfred and to relate to the translations made at his court.⁷⁷

In general Scot's writings show a respectable education. He quotes the Scriptures freely and refers occasionally to Augustine and Ambrose and more frequently to Boethius, Isidore, and Bede. Classical Latin writers, such as Virgil, Cicero, and Ovid, rarely appear. The citations from Aristotle are fairly numerous; besides the *Meleora* and *De caelo* they include two references to the full text of the *Ethics*, then just coming into use in the West.⁷⁸ There is no evidence of any real knowledge of Greek, the etymologies and the Greek names of months, climates, and points of compass being easily available at second hand; indeed it has been pointed out that in mentioning specifically Scot's knowledge of Hebrew and Arabic, Gregory IX would hardly have omitted Greek if Scot had known this language. The extent of Scot's knowledge of Hebrew we are unable to judge, but he seems to have been in relations with Jacob Anatoli, the translator of Averroës and Ptolemy.⁷⁹ It may also be noted that the Arabic writers

ferens librorum Aristotilis partes aliquas de naturalibus et metaphysicis cum expositionibus authenticis magnificata est philosophia Aristotilis apud Latinos.' *Opus majus*, ed. Bridges, i. 55, iii. 66.

⁷⁷ Document in Huillard-Bréholles, *Historia diplomatica*, iv. 383; *Chartularium Universitatis Parisiensis*, i, no. 394. Cf. Böhmer-Ficker, *Regesta*, no. 4750; Grabmann, pp. 201-203, 237, 249; supra, Chapter XII, n. 111.

⁷⁸ 'Ethica est scientia moralis quam reperitur compillavisse Aristotiles, cuius liber sic intitulatur, Ethicorum Nichomachiorum Aristotiles liber primus incipit; et sunt 10. libri cuius primus ita incipit, Omnis ars et omnis doctrina, etc.' Clm. 10268, f. 18 v; N. a. lat. 1401, f. 37. 'Unde Aristotiles in libro Ethicorum: desideratur res propter aliud.' Cod. lat. Mon. 10268, f. 16; MS. lat. n. a. 1401, f. 33 v. The history of the Latin versions of the *Ethics* is treated by Pelzer in the *Revue néoscholastique* for 1921, pp. 316-341, 378-400. Of Grosseteste's version of the commentary of Eustratius there described (pp. 382 ff.) there is a copy in the cathedral library at Seville, MS. Z. 136. 14.

⁷⁹ Renan, in *Histoire littéraire*, xxvii. 580-589; Steinschneider, *H. U.*, pp. 58, 61, 523, 553; supra, n. 63. On contemporary Jewish culture in Sicily see further M. Güdemann, *Geschichte des Erziehungswesens der Juden in Italien* (Vienna, 1884), pp. 101-107; R. Straus, *Die Juden im Königreich Sizilien* (Heidelberg, 1910), pp. 79-91.

on astronomy and astrology whom Scot cites freely were in large part available in Latin versions of the twelfth century. His scientific writings show a knowledge of medicine,⁸⁰ natural philosophy, and music, as well as a familiarity with the various branches of astronomy and its mediaeval applications. They deserve a closer examination than can here be given in relation to the astronomy and cosmology of his age.

Scot's writings on astrology were the basis of his literary fame in the Middle Ages, and it is by these that his scientific attainments must chiefly be judged today. The three treatises are introduced by a general preface, which he also calls an epilogue and which was hence written after the completion of the series.⁸¹ It is here clear that the three are parts of a single comprehensive work, and cross-references are frequent between the *Liber introductorius* and the *Liber particularis*. This general preface, which is long and diffuse, occupying thirty-eight pages in the principal manuscript, is largely given up to a loose discussion of the Creation — in the course of which the Averroistic doctrine of the eternity of the universe is specifically denied⁸² — God, the Trinity, the nature of man, and the various orders of angels and evil spirits. The heavenly bodies are not the cause of the events which they indicate, but only the signs, as the circle before the tavern is only the sign of the wine within;⁸³ but, granted an accurate knowledge of planets and the zodiac, we may know future events and the right occasions for doing anything.⁸⁴ Indeed, we are later told that the astrologer need not err, by God's help.⁸⁵ Sound learning (*mathesis*) is carefully distinguished from those magic arts (*malesis*)⁸⁶

⁸⁰ Cf. also the prescriptions which passed under his name: Brown, pp. 154 f.; *supra*, n. 62.

⁸¹ Munich, cod. lat. 10268, ff. 1-19 v; Bibliothèque Nationale, MS. n. a. lat. 1401, ff. 11-39; Edinburgh, MS. 132, f. 34. Cf. Boll, *Sphæra*, p. 440, n.; Thorndike, ii. 316-322.

⁸² 'Ob hanc causam dicunt multi quod mundus sit ab eterno . . . et quod mundus non sit eternus patet aperte.' Clm., f. 1 v; Nal., f. 11 v. Cf. the commentary on Sacrobosco, f. 2.

⁸³ Clm., f. 1; Nal., f. 11 v. ⁸⁴ Clm., f. 15; Nal., f. 32 v. ⁸⁵ Clm., f. 118 v.

⁸⁶ Clm., ff. 17-17 v. So Roger Bacon, as in the *Secretum secretorum* (ed. Steele), pp. xxviii, 2 f. Cf. Thorndike, ii. 11 f., 158, 580, 668 f.; Webb, *Ioannis Saresberiensis Policraticus*, i. 49; and in *Classical Review*, xxxv. 119 (1921).

which no Christian can rightly practise — geomancy, hydromancy, aeromancy, pyromancy, spatulamancy, necromancy, divination, auguries, incantations, prestigation, etc. The examples show that Scot was not unacquainted with these arts, as when, in the name of the Trinity, he gives an incantation for summoning evil spirits.⁸⁷ The list of magicians includes Simon Magus, Virgil, Peter Alexandrinus, the *ariolus* of Alexander, and Peter Abelard; to whom he elsewhere⁸⁸ adds Solomon and Ottonel of Parma. The history of astrology is traced from Zoroaster to Gerbert, via Nimrod, whose dialogue with Ioanton, illustrated with circles and figures, Scot has evidently seen and indeed uses in the body of the *Liber particularis*.⁸⁹ From Egypt, where it was elaborated by King Ptolemy, astronomical knowledge was carried to Spain by Atlas, all before the birth of Moses, and from Atlas two French clerks brought the knowledge of the astrolabe in France to Gerbert, *optimus negrimanticus*, who by diabolical arts attained the archbishoprics of Reims and Ravenna and at last the papal see.

The last of the three treatises, the *Physionomia*, or *De secretis nature*, may be dismissed with a word, as it has long been accessible in print and has been studied by Foerster⁹⁰ and more recently by one of Sudhoff's pupils, A. H. Querfeld.⁹¹ Dedicated to the emperor, whom it professes to guide in his judgments of men, it contains a treatise on generation and an account of the prognostications from dreams, complexions, and the different parts of the body. Its indebtedness to the *Physiognomy* of the Pseudo-Aristotle is limited to the preface; it makes free use of Razi, and shows some affinities with Trotula and other Salernitan writers.⁹² There is also, possibly through a common Arabic source, some connection with the contemporary Latin version of the Pseudo-

⁸⁷ Clm., f. 114 v; not in Nal., so that it may be an interpolation.

⁸⁸ Clm., f. 114 v.

⁸⁹ See below, Chapter XVI. The figures of the Venetian manuscript of Nimrod deserve study; cf. n. 99.

⁹⁰ *De translatione Latina Physiognomicorum quae feruntur Aristotelis* (Kiel, 1884); *De Aristotelis quae feruntur Secretis secretorum* (Kiel, 1888); *Scriptores Physiognomici* (Teubner ed., 1893).

⁹¹ *Michael Scottus und seine Schrift De secretis naturae* (Leipzig diss., 1919).

⁹² Foerster, *Scriptores*, pp. xxiii-xxv, clxxix; Querfeld, pp. 20-23, 26.

Aristotelian *Secretum secretorum*.⁹³ The *Physionomia* was Scot's most popular work, having been printed in a score of incunabula and nearly as many later editions.⁹⁴

The *Liber introductorius*, consisting of four parts or distinctions, is Scot's most ambitious work.⁹⁵ It is written in more or less popular fashion (*leviter*) for beginners in the art of astrology,⁹⁶ but is also intended for the convenience of adepts who may not

⁹³ Foerster, *Scriptores*, p. clxxix; Roger Bacon's *Secretum secretorum*, ed. Steele (Oxford, 1920), pp. xviii-xxi, lxiii; supra, Chapter VII.

⁹⁴ Querfeld, pp. 14 f., who has also used the Ambrosian manuscript of 1256. I have used still another printed copy in the Harvard library, ca. 1490 (Reichling, no. 1864), which is omitted from the *Census of Fifteenth Century Books owned in America*. The printed text lacks the chapters on urine, also copied as a separate treatise, which Querfeld prints, pp. 50-60; Italian version at Naples, Biblioteca Nazionale, MS. XV. F. 51.

⁹⁵ Munich, cod. lat. 10268, 146 folios, with notable figures, xivth century; Oxford, MS. Bodley 266, a copy of the Munich manuscript (Boll, *Sphæra*, p. 444); Paris, Bibliothèque Nationale, Nouv. acq. lat. 1401, ff. 39-128 v, probably copied in 1279 (Delisle, *Catalogue du fonds de La Trémoille*, pp. 41-43); Escorial, MS. f. III, 8; modern copy at Munich, cod. lat. 10663. Extracts at the University of Edinburgh, MS. 132 (= Munich MS., ff. 118-146 v); Bibliothèque Nationale, MS. lat. 14070, ff. 112-118 v (= Munich, ff. 86 v-89 v); Vienna, MS. lat. 3124, ff. 206-211, MS. 3394, f. 214 ff. (Saxl, in *Der Islam*, iii. 166); Vatican, MS. Pal. lat. 1363, ff. 90-94; MS. Pal. lat. 1370 (Saxl, in Heidelberg *Sitzungsberichte*, 1915, p. 25); MS. Vat. lat. 4087, ff. 88-99 v; Modena, Estense, MS. lat. 79; Seville, Colombina, MS. 7.7.1, end (saec. xv), with illustrations; Cues, MS. 209, f. 76 v; see also Brown, p. 27.

None of these manuscripts seems complete. The Munich and Oxford codices lack the fourth distinction which cross-references show to have contained chapters *De anima* (Munich MS., ff. 15, 88 v), *De arte cyromantie*, and *De elementis* (MS. Canon. Misc. 555, f. 37-37 v); they also contain later additions, as a table of 1320 (Munich, f. 76 v) and a judgment of Bartholomew of Parma in 1287 (f. 125 v). The Paris copy is earlier and considerably briefer, but includes the fourth distinction (ff. 105 v ff., where the elements and the soul are treated). It ends (f. 128 v): 'Librum primum in arte astronomica incepimus in honore ac laude Dei et ad preces domini nostri Frederici Rome imperatoris et semper augusti leviter composuimus propter novicios in arte et pauperes intellectus, et nunc ipsum complevimus suo adiutorio cui sit dignus honor, grandis laus cum actionibus gratiarum, concors amor, una fides, rectus timor, et reverens obedientia cum omni supplicatione humilitatis in preceptis eius per nos et sequentes amen, amen.' The Munich manuscript ends merely: 'Expliciunt iudicia questionum hominum secundum sententiam Michaelis Scotti grandis astrologi condam imperatoris Frederici de terra Teotonica, Deo gratias amen.'

I have used the Munich manuscript, cited as Clm., of which I have a complete rotograph, and the Paris manuscript, cited as Nal. Cf. Thorndike, ii. 322-326, based on the Bodley MS.

⁹⁶ Clm., f. 30; cf. ff. 74, 100, and the *explicit* of the preceding note.

have at hand the many works to which the author refers. It is not well organized, but the early portions are chiefly astronomical and the later astrological, the various heavenly bodies being taken up one by one and detailed advice given for the practice of the astrological art. The calendar is treated at some length, and there is a certain amount of meteorology, developed more fully in the *Liber particularis*. Emphasis is laid on the mystical value of the sevens which rule the world — seven planets, metals, arts, colors, odors, tones, etc. The music of the spheres leads to a digression on music, *de notitia totius artis musice*, which gives an outline of the whole subject, with citations of Boethius and Guido.⁹⁷ The astronomy is based chiefly on al-Fargani, with occasional citation of the *Almagest*,⁹⁸ but the remarkable figures of the constellations and planets in the Munich and Oxford manuscripts, represent an antique tradition which is ascribed by Boll to the scholia of Germanicus.⁹⁹ Scot uses the Toletan tables, though he knows those of Arin and others. The astrological writers cited are the usual ones: Albumasar Jafar, Zael, Hermes, Dorotheus, Thebit ben Korah, Messehalla, and the *Centiloquium*.¹⁰⁰ In one instance the *Liber novem iudicum* is specially commended.¹⁰¹ The author also refers guardedly to more dangerous books: a *Liber perditionis anime et corporis* containing the names, abodes, and workings of demons; and a *Liber auguriorum, ymaginum, et prestigiorum* "which we have seen and possessed in our time, although the Roman church prohibits employing them or believing in them."¹⁰²

Scot has plainly gone beyond the books and conducted his own

⁹⁷ Clm., ff. 38 v-43.

⁹⁸ E. g., Clm., f. 32 v.

⁹⁹ *Sphära*, pp. 441 ff., 540-543; Bruno A. Fuchs, *Die Ikonographie der sieben Planeten in der Kunst Italiens* (Munich diss., 1909), pp. 24-29 and plates; Saxl, in *Der Islam*, iii. 166-168, 175-177, and plate 27; *Catalogus codicum astrologicorum Graecorum*, v, 1, p. 86. None of these has compared the figures in the Venice manuscript of the so-called Nimrod (Lat. VIII, 22).

¹⁰⁰ On these and similar authorities see the *Speculum astronomie* usually ascribed to Albertus Magnus (*Opera*, 1891, x. 629), with Steinschneider's commentary in *Z. M. Ph.*, xvi. 357-396 (1871). For the question of authorship see Mandonnet, in *Revue néo-scholastique*, xvii. 313; Palitzsch, *Roger Bacons zweite Schrift über die kritischen Tage* (Leipzig diss., 1918), pp. 12-15; and Thorndike, ii, ch. 62.

¹⁰¹ Clm., f. 128. Cf. Chapter XII, n. 18.

¹⁰² Clm., ff. 114, 116 v.

experiments, leading at times to new results.¹⁰³ That this experimental temper was shared by his imperial patron we know from Frederick's treatise on falconry,¹⁰⁴ and Scot gives additional illustrations of this side of the emperor's mind. Not only did Frederick, as he himself tells us, have experts brought from Egypt to Apulia to test the incubation of ostrich eggs by the sun's heat,¹⁰⁵ but he also experimented with the artificial incubation of hens' eggs.¹⁰⁶ Scot advised the emperor to seek counsel at the time of the new moon,¹⁰⁷ and to avoid bloodletting when the moon was in Gemini, lest the puncture be repeated; but the emperor, wishing to test this for himself, called his barber at this season. The barber assured him there was no danger and staked his head upon it, but after a successful puncture he dropped the lancet accidentally on the emperor's foot, causing a swelling which required the care of a *cynigus* for a fortnight.¹⁰⁸ Scot also gives his version of an experiment which is recounted to much the same effect by

¹⁰³ 'Nos quidem fecimus multa nostris temporibus nobis et amicis de quibus vidimus magnam probationem in rebus divinis prout diverse fuerunt instructione libri ymaginum lune. Verbi gratia quadam vice recipiens semper solis radium per bussulum magnum in culo totum perforatum ad instar sachi discussi in ymaginem quam faciebamus ad valimentum cuiusdam rei future et optate diu.' Clm., f. 114.

¹⁰⁴ See the next chapter.

¹⁰⁵ *Infra*, p. 311.

¹⁰⁶ 'Et istud fecit probare dominus imperator F. multociens et ita est reperta veritas eorundem.' Clm., f. 117.

¹⁰⁷ 'Solebamus dicere domino nostro F. imperatori, Domine imperator, si vultis a sapiente clarum consilium, postulate ipsum crescente luna.' Clm., f. 118.

¹⁰⁸ 'Eligitur purgatio et diminutio sanguinis et proprie manus luna existente in signo igneo vel aereo, excepto signo Geminorum quod dominatur manibus et brachiis notando quod tunc geminari solet percussio lanceole. Hoc autem voluit videre dominus meus F. imperator et sic quadam vice luna existente in signo Geminorum vocavit suum barberium dicens ei, Est modo tollere sanguinem? Barberius dixit, Sic domine, quia tempus pulcrum est et quietum, vos autem estis bone sanitatis, etc. Cui dixit imperator, Magister, timeo ne bis me percutiatis, quod quando contingit periculosum est, etc. Tunc barberius ait, Domine, volo perdere caput si plusquam semel vos percussero, etc. Tunc dedit sibi verbum et in uno ictu exivit rivulus sanguinis. Letatur barberius dicere imperatori, Domine, timebatis de bina percussione. Habens vero barberius lanceolam in manu apposuit eam sibi in ore, quam cum sic teneret cecidit super pedem imperatoris et imperator fuit in culpa. Illa cum carnem tetigisset exivit sanguis cum dolore et inde secutus est tumor unde locus habuit consilium cynigi 15. diebus. Videns barberius casum et percussam dixit, Domine, grandis sapientia est in vobis et magna provissio futurorum, etc.' Clm., f. 114 v.

Salimbene.¹⁰⁹ Frederick had Scot calculate the height of the starry heavens — whatever that may mean — by the tower of a certain church, and then had the tower cut off somewhat and casually brought Scot back to the site. Scot took his observation and answered that either the heavens were more distant or the tower had sunk a palm's measure or less into the earth, both of which were impossible, whereupon the emperor embraced him in admiration of his skill.¹¹⁰

Apart from these mentions of the emperor, there are few references to Italy. Scot tells us he predicted the rising of Aquila in Italy 20 December.¹¹¹ He begins the year in the Pisan style,¹¹² and notes that the imperial notaries begin the year at Christmas and the Venetian notaries with the Lord's incarnation.¹¹³ In the streets of Messina and Tunis (?) there are fortune-tellers who follow the Oriental precepts of Alchandrinus and seek out newly arrived merchants.¹¹⁴ Among the questions which the astrologer must be prepared to answer are those concerning the acceptance of election as *podestà* or the fate of a city in war;¹¹⁵ indeed the whole account of the wealth and position of the astrologer and his mode of life¹¹⁶ reflect the influence and position of the profession in the Italy of the thirteenth century.

The *Liber particularis*,¹¹⁷ also written at Frederick's request, is

¹⁰⁹ Ed. Holder-Egger, p. 353.

¹¹⁰ 'De hoc probavit nos imperator in venatione apud turrinam cuiusdam ecclesie ville. Facta autem ratione per geometriam et arismetricam ei diximus summam miliariorum et hanc fecit notare in scriptis. Interim fecit latenter truncari turrem per .i. semisum, iterum conduxit me in venatione per illas partes et cum fuimus iuxta turrem finxit se non bene recordari de summa numeri mensurationis cacuminis turris usque ad celum sydereum et sic secundo petiit rationem fieri a me. Facta vero ratione sapienter nec invenerim ut prius, dixi, Domine, aut celum superius ascendit quam erat externa die vel turris intravit terram per unum palmum sive semisum, quod est mihi impossibile credere, et cum non perpenderem detruncationem pedis turris factam latenter ipse imperator amplexatus est me et miratus est valde de sententia numeri et omnis qui cum eo erat.' Clm., f. 31.

¹¹¹ Clm., f. 86 v.

¹¹² Clm., f. 60.

¹¹³ Clm., f. 71.

¹¹⁴ 'Et talis modus qualem Alchandrinus ostendit in generali servatur inter Arabes et aliquos Indorum, ut patet in viis et stratis Messine et Tonisti in quibus sunt mulieres docte que invitant novos mercatores inquirere de statu illorum, de domo sua, de fortuna sue mercationis, etc.' Clm., f. 119.

¹¹⁵ Clm., fols. 133 v, 142 v.

¹¹⁶ Clm., f. 118 v.

¹¹⁷ It is found in the Bodleian, MS. Canon. Misc. 555, ff. 1-59, dated 1256 (unless

likewise a popular introduction. Much briefer than the *Liber introductorius*, it seeks to supplement this in certain particulars, as the preface explains:

Incipit liber particularis Michaelis Scotti astrologi domini Frederici Rome imperatoris et semper augusti quem secundo loco breviter compillavit ad eius preces, in nomine Iesu Christi qui fecit celum et terram in intellectu. Prohemium.

Cum ars astronomie sit grandis sermonibus phylosophorum et quod de ipsa multi multa scripserunt et diversa veluti cognoverunt semel et pluries experimentis celestium et per celestia de terrestribus, idcirco que compendiose sufficiunt scribere novicio in eadem arte ad preces domini nostri Frederici Rome imperatoris et semper augusti iuxta vulgarem in gramatica compillavi ut aliquis novicius hoc opus inveniat quantum per se valeat studere in ipso et de arte astronomie intelligere competenter.¹¹⁸ . . . Sed quia in precedenti libro tractavimus de hiis que utilia sunt et necessaria omni volentium scire prenominatam artem, in hoc secundo libro adhuc recitamus quedam particularia de arte plenius que vero sunt penitus de necessitate cognoscenda pariter et scienda. Et hec que intendimus dicere in illo non tetigimus quod sciamus. Qui vero hos duos libros plene noverit ac sciverit operari nomen novi astrologi optinebit.¹¹⁹

The treatise contains relatively little astrology in the narrower sense, being devoted to the reckoning of time, where the author cites Helperic, Bede, Gerland (?), and modern computists;¹²⁰ sun, moon, and stars; the winds and tides; and various meteorological questions, many of which are also touched in the *Liber introductorius*. The whole is a curious mixture of Isidore, Roman

otherwise stated, references below are to this manuscript); the Ambrosian, MS. L. sup. 92, fols. 1-89, where the date 1256 also appears; Bibliothèque Nationale, MS. n. a. lat. 1401, fols. 129-162 v, incomplete at beginning and end, following the *Liber introductorius*; Escorial, MS. e. III. 15, incomplete at the end; Vatican, Rossi MS. ix. 111, of the year 1308 (cf. *Neues Archiv*, xxx. 353 f.); Breslau, MS. f. 21 (Pertz, *Archiv*, xi. 704; Querfeld, p. 14). The extracts in MS. Corpus 221, fols. 2-53 (Coxe, *Catalogi*, p. 88) are probably in part from the *Liber particularis*. Dr. Birkenmajer informs me that there is also a copy at Berlin, Cod. lat. 550.

¹¹⁸ Here follow a list of writers on astrology, much as in the *Liber introductorius*, and a list of necessary instruments: 'tabule Tolletane vel alie meliores eis ac faciliores si unquam appareant, studiosa compotatio algorismi in suis speciebus, horologium perfectum, astrolabium integrum, quadrans iustum, et spera lignea qua utuntur phylosophi ad oculum cum tractatu regularum Parisiensi, cui spere in nostro magisterio addidimus circulos planetarum sperales quos collocavimus seriatiim infra zodiacum cum corporibus planetarum designatis.'

¹¹⁹ MS. Canon. Misc. 555, f. 1-1 v; MS. Ambrosian L. sup. 92, ff. 1-2.

¹²⁰ 'Computiste ecclesie, ut Albericus, Girardus, et Beda,' MS. Canon. Misc. 555, f. 6 v; 'computiste moderni,' f. 10.

tradition, Aristotle's *Meteorology*, ecclesiastical writers, and bits of Arabic learning. The setting is Italian and in large measure Sicilian, mention being found of the *tramontana* and the oppressive south wind, the Germans in the Romagnola and the march of Ancona,¹²¹ the sulphur baths of Montepulciano, Porretta, and Montegrotto,¹²² and the volcanic phenomena of Sicily.

The most interesting part of the *Liber particularis* is the last quarter, consisting of a series of questions of Frederick II on various scientific and quasi-scientific matters, with Michael Scot's answers. Frederick's use of the questionnaire has long been known from the so-called 'Sicilian Questions' directed to the various Saracen rulers and preserved in part through the answers of ibn Sabin of Ceuta analyzed by Amari in 1853.¹²³ More recently fragments of a set of questions on optics have been recovered by Wiedemann.¹²⁴ The series printed below is, so far as I am aware, unknown and doubtless owes its preservation to its incorporation as an addendum to the *Liber particularis*:¹²⁵

Cum diutissime Fredericus imperator Rome et semper augustus oppinatus fuisset per institutum ordinem a semetipso de varietatibus totius terre que sunt et apparent in ea supra eam inter eam et sub ea, quadam vice me Michaellem Scotum sibi fidelem inter ceteros astrologos domesticos advocavit et in occulto fecitque mihi sicut eidem placuit has questiones per ordinem de fundamento terre et de mirabilibus mundi que infra continentur, sic incipiens verba sua:

Magister mi karissime, frequenter ac multipharie audivimus questiones et solutiones ab uno et a pluribus de corporibus superioribus, scilicet solis et lune ac stellarum fixarum celi, et de elementis, de anima mundi, de gentibus paganis et Christianis, ac de ceteris creaturis que sunt communiter super terram et in terra ut de plantis et metallis. Nundum autem audivimus de

¹²¹ 'Idem est de bestiis, verbi gratia gentes Alamanie in asta sunt difficiles gentibus Romaniole ac marchie de Ancona, etc.' MS. Canon., f. 41 v.

¹²² 'Ut patet in Pulicano Viterbii, in comitatu Padue ubi dicitur Mons Gotus, etc.' MS. Canon., f. 43 v; see also below.

¹²³ "Questions philosophiques adressées aux savants musulmans par l'empereur Frédéric II," in *Journal Asiatique*, 5th ser., i. 240-274; 7th ser., xiv. 341.

¹²⁴ "Fragen aus dem Gebiet der Naturwissenschaften gestellt von Friedrich II," in *Archiv für Kulturgeschichte*, xi. 483-485 (1914). See above, Chapter XII, nn. 119-122.

¹²⁵ MS. Canon. Misc. 555, f. 44 v; Ambrosian MS. L. sup. 92, f. 69; MS. Rossi IX, 111, f. 37; MS. n. a. lat. 1401, f. 156 v, a somewhat different text, briefer at some points but containing the two additional passages printed in the following notes. For an English translation, see above, Chapter XII.

illis secretis que pertinent ad delectum spiritus cum sapientia, ut de paradiso, purgatorio et inferno ac de fundamento terre et de mirabilibus eius. Quare te deprecamur amore sapientie ac reverentia nostre corone¹²⁶ quatenus tu exponas nobis fundamentum terre, videlicet quomodo est constancia eius super habyssum et quomodo stat habyssus s' b terra et si est aliud quod sufferat terram quam aer et aqua, vel stet per se an sit super celos qui sunt sub ea; quot sint celi et qui sint sui rectores ac in eis principaliter commorentur; et quantum unum celum per veracem mensuram cesset ab alio, et quod est extra celum ultimum cum sint plures et quanto unum celum est maius alio; in quo celo Deus est substantialiter, scilicet in divina maiestate, et qualiter sedet in trono celi; quomodo est associatus ab angelis et a sanctis, quid angeli et sancti continue faciunt coram Deo. Item dic nobis quot sunt habyssei et qui sunt spiritus commorantes in eis nomine, ubi sit infernus, purgatorius, et paradus celestialis, scilicet an sub terra vel in terra vel supra terram.¹²⁷ Item dic nobis quanta est mensura huius corporis terre per grossum et per longum, et quantum est a terra usque in celum altissimum et a terra usque in habyssum, et si sit una habyssus vel sint plures habyssei, et si sunt plures quantum cesset una ab alia; et si hec terra habeat loca vacua vel non ita quod sit corpus solidum ut lapis vivus; et quantum est a facie terre deorsum usque ad celum subterius. Item dic nobis quomodo aque maris sunt sic amare ac fiunt salse in multis locis et quedam sunt dulces extra mare cum omnes exeant de vivo mari. Item dic nobis de aquis dulcibus quomodo ipse omni tempore eructuant extra terram, et quandoque de lapidibus et de arboribus ut vitibus velud in vere apparet per putationem, unde veniunt et surgunt et quomodo est quod earum quedam eructuant dulces et suaves quedam clare et quedam turbide ac quedam spisse ut gummose, quoniam mirramur ex eis valde eo quod scimus iamdiu quod omnes aque exeunt de mari et euntes per diversa loca regionum et venarum adhuc intrent in mare, et ipsum mare est tantum et tale quod est lectus et receptaculum omnium aquarum decurrentium. Unde vellemus scire si sit unus locus per se qui habeat aquam dulcem tantum sicut unus est que habeat aquam salsam, an sit ambarum aquarum unus locus, et si est unus quomodo iste due aque sunt sibi tam contrarie cum ratione diversitatis colorum et saporum atque motuum videatur quod sint duo loca. Unde si sint duo loca aquarum scilicet dulces et salse, querimus certificari quis eorum sit maior et minor, et quomodo est quod hee aque decurrentes per orbem terre videantur eructuare omni tempore ex nimia habundancia sui de loco sui lecti, et licet tam copiose habundent illico tamen non multiplicant quasi ultra communem mensuram ratione tanti additus sed sic stant eructuantes quasi ex una mensura vel ad similitudinem unius mesure. Vellemus etiam scire unde fiunt aque salse et amare que per loca reperiuntur surgitorie et aque fetide, ut in multis locis balnearum et piscinarum, an ex se ipsis fiant vel aliunde. Similiter iste aque que per loca eructuant tepide vel bene calide aut ferventes velut essent supra

¹²⁶ *Ac imperii maiestatis*, the Paris MS. adds.

¹²⁷ Here the Paris MS. inserts: 'Et que sit differentia animarum que cotidie illuc deferuntur et spirituum qui de celo ceciderunt, et si una anima in alia vita cognoscit aliam et si aliqua potest transire ad hanc vitam causa loquendi et se demonstrandi alicui, et quot sunt pene inferni.'

ignem ardentem in aliquo vase quomodo sunt ita, unde veniunt et unde sint et quomodo est quod aquarum eructantium quedam semper fiunt clare quedam turbide. Vellemus etiam scire quomodo est ille ventus qui exit de multis partibus orbis et ignis qui eructuat de terra tam planure quam montis; similiter et fumus apparens modo hic modo illic unde nutritur et quod est illud quod facit ipsum flare, ut patet in partibus Scilie et Messine sicut in Moncibello, Vulcano, Lippari, et Strongulo. Quomodo etiam est hoc quod flamma ignis ardentis visibiliter apparet non solummodo in terra sed in quibusdam partibus maris Indie.¹²⁸

Then begins Scot's long reply:

Cui ego Michael Scottus tanquam scottatus a multis et a diversis libere spopondi dicere veritatem cum vehementi admiratione tantarum et talium questionum: O bone imperator, per memetipsum oppinor vehementer quod si unquam fuisset homo in hoc mundo qui per suam doctrinam evasisset mortem, tu es ille qui inter ceteros debuisses evadere. Sed mors est talis calix et tam communis quod ex eo bibit et bibet omnis sapiens et insipiens, cum in hoc mundo nihil reperiatur fortius morte. Tamen doctrina sapientum vivorum et mortuorum que in hoc seculo dicitur vel scripta reperitur ad instruendum indoctos et ad memorandum perito; donec vita permanet proficit multis et in multis, videlicet quantum ad corpus et quantum ad animam, de qua multum curandum est. Et ideo mihi est valde acceptabile duras questiones audire eo quod tunc proficio in scientia multis modis et principaliter dum sunt ipsius scientie qua pocior et glorior inter gentes ac me penes vos video honoratum. Unde sicut constituistis cor vestrum ad has cogitationes questionum quas nunc mihi dilucidastis ordine pretaxato, sic ponite aures vestri capitis ad audiendum et mentem vestram ad intelligendum plenam satisfactionem omnium predictorum que vobis leviter et sine disputatione pandere non pigritabor si Deus voluerit.

This boastful preface, followed by a supplication for divine aid,¹²⁹ introduces thirty pages of manuscript which it is unnecessary to reproduce in full. Brief statements concerning hell, purgatory, heaven, and the terrestrial paradise are followed by an account of the marvels of nature — strange lakes and rivers of the East, wondrous metals, stones, plants, drugs, and animals, with their respective virtues. The magnet is mentioned incidentally three times,¹³⁰ each time as something well known. The

¹²⁸ The Paris MS. adds: 'Et quomodo est hoc quod anima alicuius hominis viventis dum transierit ad aliam vitam quod nec amor primus nec etiam odium dat sibi causam reddeundi tanquam nihil fuisset, nec de remanenti re videtur amplius curare sive sit salvata sive dampnata.'

¹²⁹ 'Per meam sapientiam vobis ad tanta et talia non possem veraciter satisfacere nisi esset mihi donum gratie a Deo datum.'

¹³⁰ 'Per calamitam scitur ubi est tramontana cum acu, et cognito domino anni

most interesting of these chapters is that on metals, a summary of alchemistic doctrine which can be usefully compared with the alchemical writings attributed to Scot:

Metallum est quedam essentia que dicitur secunde compositionis, cuius species sunt 7, scilicet ferr: m, plumbum, stagnum, ramum, cuprum, argentum, et aurum, sciendo quod generantur compositione argenti vivi, sulphuris, et terre. Et secundum unitam materiam eorum quibus componuntur sunt ponderis et coloris. Aurum plus tenet sulphuris quam argenti vivi; argentum tenet plus argenti vivi quam terre et sulphuris; ferrum plus tenet terre quam argenti vivi, etc. Valet quodlibet ad multa ut in compositione sophistica et in aliis virtutibus. Verbi gratia: aurum macinatum valet senibus volentibus vivere sanius et iuniores esse sumptum in cibo, et per eum comparantur multi denarii argenti causa expendendi, fiunt multa monilia, decorantur vasa, et pro eo acquiruntur femine ac multe possessiones. Argentum emit aurum et ex eo multa acquiruntur ut ex auro et fiunt ut denarii, vasa, etc. Stagnum valet ad faciendum vasa et aptandum ferrum laboratum et ramum. Idem dicitur de plumbo ramo etc. Sophysticantur metalla doctrina artis alchimie cum quibusdam additamentis pulverum mediantibus spiritibus quorum species sunt 4, scilicet argentum vivum, sulphur, auripigmentum, et sal ammoniacum. Ex auro cum quibusdam aliis fit plus aurum in apparentia, ex argento et ramo dealbato cum medicina fit plus argentum in apparentia, etc. De argento leviter [fit] azurum. De plumbo leviter fit cerusa. De ramo leviter fit color viridis cum aceto forti et melle. De plumbo et ramo etc. fit aliud metallum. De stagno et ramo fit peltrum cum medicina. Argentum vivum destruit omne metallum ut patet in moneta quam tangit et stagno cuius virgam rumpit tangendo, etc. De plumbo fiunt manubria lime surde quo sonus mortificatur. Argentum vivum interficit edentem et tollit auditum si cadat in aures. Metallorum aqua, ut ferri arsenici vitrioli calcis et virideramini, corodit et frangit calibem. Ex vilibus et muracido ferro fit ferrum andanicum, et ecce mirrabile magnum.¹³¹

Coming at last to the emperor's penetrating questions concerning the earth, Scot explains that the earth is round like a ball, surrounded with water as the yolk is surrounded in the egg, the waters being held in their place by a secret virtue; but any further knowledge of this is beyond human ken and merit. The distance to the extreme of the waters beneath the earth equals the distance

adequatione tabularum de Tolleto scimus quod futurum est in rebus.' MS. Canon. Misc., f. 48 v. 'Item est lapis qui sua virtute trahit ferrum ad se ut calamita et ostendit locum tramontane septentrionalis. Et est alius lapis generis calamite qui depellit ferrum a se et demonstrat partem tramontane austri.' *Ibid.*, f. 50. 'Calamita reconciliat uxorem ad maritum.' *Ibid.*, f. 50 v. Cf. *Physionomia*, part 1, c. i. On the compass in the thirteenth century see the various studies of Schück (*Isis*, iv. 438) and Günther in *Deutsche Revue*, March, 1914.

¹³¹ MS. Canon., f. 49 v; MS. Ambrosian, f. 76 v; not in Nal.

to the moon. After air ends fire begins, extending from the moon to the eighth sphere, then a multitude of waters and then the ether as far as the ninth sphere, the spheres being fitted one about another like the layers of an onion. The waters of the sea are bitter because they are older and are not exposed to the sun's heat. Waters were created with inexhaustible virtue of pouring forth so long as the world endures, and they move about in the earth like blood in the veins, the quality of the water depending on the earth through which it passes, and its heat coming from dry, hot rocks, especially sulphur. The hot springs of Montegrotto, Porretta, and Montepulciano and the volcanic outpourings of Etna and the Lipari islands are explained as follows: ¹³²

Nam illius quod me interrogastis de flammis ignis que visibiliter apparent in multis locis huius mundi ut in partibus Scilie etc., iam supra diximus intellectum huius in capitulo quod incipit, Tellus Scilie, etc., et in capitulo alio quod incipit, Queri solet de aquis fluminum.¹³³ Sed quia de hoc facta est expressa questio iterum studebimus dictam questionem solve. Unde dicimus quod in ventre terre sunt saxa sulphuris vivi et petre calidissime nature et in eisdem partibus sunt multe vacuitates quas venas appellamus et fistulas. Causa est fervor caloris quo terra grustificatur cessans a sede illius sulphuris, et ventus qui spirat per orbem reperit fixuras terre in extremis partibus et cavernas qui dum intrat in eas non revertitur retrorsum ymo flat antrorsum de vena in venam et de fistula in fistulam et sic tentans loca cavernosa pervenit ad has vacuitates ubi est tanta copia sulphuris et petrarum calidissimarum, et quia ventus est substantia calida et sicca atque subtilissima et se fricat per tales partes magis subtiliatur, et quia est de materia elementalī recipit compositionem qua cum exit de locis apertis usque que ¹³⁴ continuatur illa multitudo sulphuris et petrarum calidissimarum apparet flammabilis vehementer, et a diversis gentibus iudicatur et creditur esse ignis cum habeat omnes condiciones ignis nostri, scilicet motu sintilis figura dumī fumo et cinere in eisdem partibus. Calore vero tali aer in eisdem partibus inflammatur et fit subtilis calidus et sulphure odoriferus. Unde aque calide et bullientes surgunt in eisdem partibus et sunt balnee multe, sicut est Pellicanus apud Viterbium, balneum de Porretta, de Monte Gotto in districtu Padue, etc., sciendo quod ubi habundat calor et sulphur sub terra crescit aurum et nascitur, econtra in contraria parte nascitur plumbum ferrum et argentum utrumque. Sunt etiam aque frigide, lacus magni, nives, etc., unde substantia illius flamme ignis parissibilis in certis locis terre et maris non est aliud quam vapor calidus et siccus violenter inflammatus a maiori calore et

¹³² MS. Canon., ff. 56 v-57 v; MS. Ambrosian, ff. 85-86 v; not in NaI.

¹³³ MS. Canon. Misc. 555, ff. 40, 43, where these topics are more briefly discussed.

¹³⁴ I. e., 'usquequaque.'

siccitate, quod totum fit secundum quod prediximus. Et quia ventus non cessat antecedere sive per aerem expeditum ut supra terram sive per cavernas terre prepeditem, aut in exitu loci exit calidus invisibiliter aut inflammabilis visibiliter aut frigidus invisibiliter. Et est sciendum quod si sulphur continuatur producte usque ad exitum venti exit ventus in modum flammæ que est magna vel parva secundum quantitatem substantiæ venti et habundanciam caloris et conditionem aeris quem reperit impeditum ab aliqua impressione vel absolutum, et hoc dico tam de vento invisibili quam visibili et tam de frigido ut in partibus Sclavonie et Alamannie quam in partibus Scicilie, etc. Ut etiam patet per Strongulum montem qui est in medio maris et per Strongulinum, per Vulcanum et Vulcaninum, per Moncibellum et per insulam Lippari in qua sunt omnia genera bonarum arborum et herbarum. Nam Strongulus est mons magnus in mari et de sumitate illius exit continue magna flamma ignis. Similiter exit continue flamma ignis de sumitate montis Strongulini qui est mons minor Strongulo. De monte Vulcani et Vulcanini, Moncibelli et insule Lippari dicimus quod ex eis quandoque exit flamma ignis ut quociens ventus qui dicitur auster spirat et non alias et quando cessat flamma exit fumus maximus. Et est sciendum quod ista flamma ignis cuiuslibet dictorum locorum sepe importat lapides adustus et quandoque sticiones lignorum et cinerum que cooperit totam terram inde et aerem sepe obcecat ut est in partibus fluminum de arena. Eiciuntur etiam multi igniculi extra in altum cum flamma ardentes ut ferrum focine fabri sintillans qui descendendo franguntur in multa frustra et magna et parva, et hec reperiuntur esse pomices quibus utuntur scriptores, et has pomices mare portat ad littora et colliguntur a gentibus et inde murantur domus et parificantur ut apud nos de lateribus, quare in eisdem partibus sunt montes et fragmenta ut de lapidibus apud ceteras regiones. Aqua quidem pelagi est inde frigens et sulphurea unde marinarii transeuntes hinc quandoque implent nodos harundinum et catinos de illa aqua que cum est frigida esse sulphur probatur coagulatione, et est sciendum quod quanto plus aqua accedit prope montes ubi bullit tanto magis sulphur est melior. Verum est quod sulphuris alius albus alius niger alius zallus, etc., sciendo quod unusquisque habet certas virtutes magni valoris, ut in alchimia ad commutandum metalla et ad faciendum focum zambanum, unguenta ad scabiem, etc., suffumigatio cuius dealbat setam zallam et folia rose et lilii et cum ardet reddit aerem feculentum. Insuper dicimus quod si illa flamma esset ignis ut noster extingueretur ab aqua que est nostro igni contraria percurrens sub terra in partibus sulphureis in quibus inflammatur, sciendo quod sicut est cursus aquarum super terram et origo fontium lectus fluminum et multitudo lacuum et stagnorum, sic est inter terram. Item dicimus quod si dicte petre tam calide nature essent super terram sicut sunt in ea absconse et sulphur cum eis, iam mundus esset undique consumatus caliditate flatus ventorum inde transeuntium. Sed cum misericordia Dei sit maxima in dispositione constitutionis mundi, hunc sulphurem et hos lapides locavit inter terram propter melius, nolens quod mundus taliter destrueretur, unde voluntate Dei flammæ dictorum locorum nec mundum destruunt nec loca sibi propinqua, unde super dictos montes sunt domus que ab hominibus inhabitantur et cultus terre quo fructus habentur multi.

Such evil signs have led many to believe that these volcanoes are the entrance to the hell which is vividly described in the vision of St. Paul in prison; but whether the gate to the lower regions is here or in the northern isle seen by St. Brandan, Scot will not decide. Whatever the way in, hell is in the bowels of the earth, and there is no way out.¹³⁵

Scot does not answer all the emperor's questions and his answers are far from satisfactory, yet all is not empty words. He has some acquaintance with the principal sulphur springs and volcanoes of Italy, and, while his knowledge of the Lipari group does not necessarily rest on personal observation, it at least represents inquiry among those who have observed. Although the omission of any special account of Etna is noteworthy, he has in these local matters gone well beyond Aristotle's *Meteorology* and given some real description of volcanic phenomena.¹³⁶ Nevertheless, making all allowance for the fact that it is easier to ask questions than to answer them satisfactorily, the emperor's questions show the keener mind and the more penetrating intelligence. They raise real difficulties, and, like those preserved by ibn Sabin, they cut deeply into the current cosmology. That one who can go so far in these directions should at the same time accept implicitly the facile predictions of the court astrologers, is one of the typical contradictions in the intellectual life of the thirteenth century.

¹³⁵ The treatise ends: 'Hec autem que breviter et facile diximus nunc ut melius fuit nobis visum, vobis domine imperator, sufficiant ad presens de recitatione mirabilium mundi que Deus fecit cum magno delectu ad instar ioculatoris et adhuc facit continue, et de expositione fundamenti terre. Volentes hic finire secundum librum quem incepimus in nomine Dei cui ex parte nostra sit semper grandis laus et gloria benedictio et triumphus in omnibus per infinita secula seculorum amen. Explicit secundus liber Michaelis Scotti qui dicitur liber particularis. Nunc incipit liber physionomie. . . .' MS. Canon. Misc. 555, f. 59; Ambrosian MS. L. sup. 92, fols. 88 v-89.

¹³⁶ Cf. *Geographical Review*, xiii. 141 f. (1923).

CHAPTER XIV

THE *DE ARTE VENANDI CUM AVIBUS* OF FREDERICK II¹

THE reign of the Emperor Frederick II holds an important place in the transition from mediaeval to modern culture. Much has been written of the cosmopolitan intellectual life of his court, of its school of poetry as the cradle of Italian vernacular literature, of the philosophers and translators who linked it with the older world. To many it has seemed that it is under Frederick, "the first modern man upon a throne,"² rather than in the days of Petrarch, that the real beginning of the Italian Renaissance is to be sought. In any such discussion much depends upon our judgment of the personality of the emperor, that *stupor mundi* of learning whose *superstitiones et curiositates* scandalized contemporaries. All agree as to the extraordinary activity and extraordinary interest of his mind, yet its principal literary product, his *De arte venandi cum avibus*, has been strangely neglected. Mentioned in rather perfunctory fashion by other historians,³ its significance has been more fully seen by Karl Hampe, who declares that this book must be studied by all "who wish to learn to know Frederick's method of thinking and working scientifically";⁴ yet Hampe devotes but two pages to the treatise, the greater part of which he has not read. The solid volume

¹ Revised from *E. H. R.*, xxxvi. 334-355 (1921). Cf. Sudhoff, in *Mitteilungen zur Geschichte der Medizin*, xxi. 41; *Isis*, iv. 203.

² J. Burckhardt, *Die Cultur der Renaissance in Italien* (ed. Geiger, Leipzig, 1899), i. 4.

³ Raumer, *Geschichte der Hohenstaufen* (Leipzig, 1857), iii. 286 f.; Huillard-Bréholles, *Historia diplomatica Friderici Secundi* (Paris, 1859), introduction, pp. dxxxv f.; Ranke, *Weltgeschichte*, viii. 369; Biehringer, *Kaiser Friedrich II* (Berlin, 1912), p. 273; Novati, *Freschi e minii del dugento* (Milan, 1908), pp. 137-143; Paolucci, "Le finanze e la corte di Federico II," in *Atti of the Palermo Academy*, vii. 41-45 (1904); L. Allshorn, *Stupor mundi* (London, 1912), p. 118. The very brief treatment of the *De arte venandi* is a serious gap in the suggestive article of H. Niese, "Zur Geschichte des geistigen Lebens am Hofe Kaiser Friedrichs II," in *Historische Zeitschrift*, cviii. 473-540 (1912).

⁴ *Historische Zeitschrift*, lxxxiii. 19 (1899).

required for a complete text would need careful examination by the zoölogist and the falconer, in relation both to its antecedents and to its additions to the store of theoretical and practical birdlore, and our knowledge of mediaeval zoölogy and of the earlier literature on falconry ⁵ is still insufficient to permit these specialists to assign the treatise to its final place. Still, a beginning must sooner or later be made, and the fresh use of manuscript material may enable even a layman to draw certain provisional conclusions concerning the sources and composition of the *De arte* and the light it throws on the workings of the emperor's mind.

The chief obstacle to a study of the *De arte venandi cum avibus* is the lack of a complete edition. The treatise contains six books, yet only two have been printed, from an incomplete manuscript then in possession of Joachim Camerarius of Nürnberg, and since supposed lost, but now clearly identifiable with MS. Pal. lat. 1071 of the Vatican. The *editio princeps* of Velser (Augsburg, 1596), reprinted with a valuable zoölogical commentary by J. G. Schneider (Leipzig, 1788-89),⁶ not only has *lacunae* which correspond to the considerable *lacunae* and the faint and illegible portions of this codex, but it is in places quite careless, so that it does not furnish a satisfactory edition even of this mutilated copy of the first two books. It became the basis of two translations into German,⁷ yet, with all the learning lavished on Frederick II by German writers, no one has published a comparison of the different manuscripts or edited a complete and critical text. There are two principal classes of manuscripts:

⁵ The principal study of this material is by Werth, "Altfranzösische Jagdlehrbücher nebst Handschriftenbibliographie der abendländischen Jagdlitteratur überhaupt," in *Zeitschrift für romanische Philologie*, xii. 146-191, 381-415, xiii. 1-34 (1888-89), who reviews the important mediaeval works on falconry without throwing any new light on the work of Frederick II. He overlooks the Vatican MS., mentioned by Seroux d'Agincourt in 1823, by Huillard-Bréholles in 1859, and by Bethmann in 1874 (Pertz, *Archiv*, xii. 350), and makes no advance in relation to the six-book text, first indicated by Jérôme Pichon in 1863 (*Bulletin du bibliophile*, xvi. 885-900). See also below, Chapter XVII.

⁶ In the citations below I have referred to Schneider's text as the more accessible, using the copy at Columbia University, but all such passages have been collated with the Vatican MS.

⁷ By Johann Erhard Pacius, Onolzbach, 1756; and by H. Schöpffer, Berlin, 1896.

I. Containing the first two books only, with Manfred's additions:

M. Vatican, MS. Pal. lat. 1071. Parchment, 111 folios, 360 × 250 mm., written not long after the middle of the thirteenth century, with valuable illustrations in a contemporary hand. The chapters are rubricated but not numbered. The rubrics are in red; the initials, in red and blue, are colored only to f. 36 v. The first page, as well as many later pages, has been partly defaced by moisture, and has two holes in the parchment, hence the *lacunae* in the first two pages of the editions. The text breaks off in c. 80 of bk. ii, shortly before the end of the book. As this text contains the additions made by Manfred as king, it falls between his coronation in 1258 and his death in 1266. The considerable *lacuna* between ff. 16 and 17 (bk. i, c. 23), which fills pp. 47-72 of MS. B, existed already in the thirteenth century, since it is found likewise in MS. *m*. (f. 28). The conclusion of bk. ii was probably also missing when the version of *m* was made, for *m* carries the text no further than the last folio of M and rounds out the sentence with a general phrase. On the other hand, the *lacuna* of one folio after f. 58 (ii, 33), not found in *m*, must have been made between ca. 1300 and 1596. On the miniatures, see Seroux d'Agincourt, *L'histoire de l'art* (Paris, 1823), v, pl. 73 and text; Venturi, *Storia dell' arte italiana*, ii, nos. 277 f., iii, nos. 689-698; S. Beissel, *Vaticanische Miniaturen* (Freiburg, 1893), p. 39 and plate xx; Graf zu Erbach-Fürstenau, *Die Manfredbibel* (Leipzig, 1910), c. 2. Those on the second page, one of which is reproduced in the Augsburg edition, evidently represent Frederick II on his throne; that on f. 5 v, on the margin of Manfred's first addition, is plausibly conjectured by Erbach to represent Manfred. The administration of the Vatican library plans a publication of the whole manuscript in facsimile edition. For much of this and for other information and assistance I am specially indebted to Monsignore A. Pelzer.

M 1. Vienna, Nationalbibliothek, MS. 10948. A sixteenth-century copy, apparently from M, omitting the preface and introduction.

m. Paris, Bibliothèque Nationale, MS. Fr. 12400. Parchment, 186 folios, ca. 1300, with illustrations. A French translation, made for Jean de Dampierre and his daughter Isabel, probably ca. 1290-1300. See *Notices et extraits des MSS.*, vi. 404; Pichon, in *Bulletin du bibliophile*, xvi. 894-897 (1863). The text is that of M, including the additions of Manfred; probably the version is based on M itself, for the illustrations of birds in M are followed closely and the same *lacuna* occurs in i. 23; but the text of M had not yet been injured by moisture or by the holes in the first folio. On the miniatures see Vitzthum, *Die*

Pariser Miniaturmalerei des xiii. Jahrhunderts, pp. 228 f. (Leipzig, 1907).

m 1. Geneva, MS. Fr. 170. Parchment, fifteenth century, with similar illustrations. Same translation as *m*. See Senebier, *Catalogue raisonné des MSS.*, pp. 426 f.; Aubert, in *B. E. C.*, lxxii. 307-309.

m 2. Bibliothèque Nationale, MS. Fr. 1296. A different French translation of the second book only. See Pichon, pp. 898 f.

II. Containing the whole six books,⁸ without Manfred's additions:

B. Paris, Bibliothèque Mazarine, MS. 3716. Parchment, 589 pages, early fifteenth century, with remnants of a coat of arms of Anjou-Sicily. P. 589: 'Explicit liber falconum cum quibus venantur.' See Pichon, pp. 888-891. I have a complete rotograph of this manuscript. The illuminations, save for the first page, are confined to a few initials and have nothing in common with those of M and its derivatives. In bk. i B contains (pp. 32-37) after c. 15 a passage on the feeding of birds of prey which is lacking in M, and in c. 23 it enables us (pp. 47-72) to fill the important *lacuna* in the M group. At the close of this book (pp. 139 f.) it repeats c. 54 which it has already on p. 120. In bk. ii it omits the last sentence of the prologue and cc. 1-30, resuming with c. 31 on p. 90 of the edition; it fills (pp. 146-149) the *lacuna* in c. 33; inserts (pp. 256 f.) eight lines at the end of c. 76; and finishes (pp. 277-281) the treatment of hooding in c. 80 left incomplete by the break in M.

C. University of Valencia, MS. 402. Parchment, 238 folios, fifteenth century, with the arms of Aragon-Sicily. Attributed in a hand of the eighteenth century to Thomas of Capua (!). Inaccessible when I visited this library in 1913, but now described by Marcelino Gutiérrez del Caño, *Catálogo de los manuscritos existentes en la Biblioteca Universitaria de Valencia* (Valencia, [1915]), i. 154 f., with a facsimile of the first page which shows a text identical with B.

D. Rennes, MS. 227, paper, 404 folios, fifteenth century: 'Liber falconum cum quibus venantur.' With chapter headings throughout and a table of contents at the close, ff. 389-404; text as in B.

E. Bologna, University Library, MS. Lat. 419 (717). The full six books, with some veterinary material at the end.

⁸ The Bodleian MS. Digby 152 (saec. xiv) contains, ff. 42-54 v, a loose body of extracts comprising a large part of the first half of bk. iii, incorporated as bk. iv of a treatise of which the lost third book dealt with the subject of Frederick's second, even taking over Frederick's reference to his own second book (f. 42 v = MS. B, p. 282). As this manuscript begins with the fourth book of the treatise and breaks off in the middle (= MS. B, p. 323), further comparison is impossible.

F. MS. formerly in possession of Baron Pichon, from whose library it passed in 1869 to M. Giraud de Savine. See *Bulletin du bibliophile*, xvi. 891-893. Closely related to B. Copy executed for Astorre Manfredi of Faenza, probably Astorre II (†1468).

The two families of manuscripts thus correspond to two editions. The first or two-book family is Manfred's edition, with the additional matter which he discovered as well as with notes of his own. The second or six-book family was not thus revised and supplemented, but it fills the *lacunae* in books i and ii. Whether Manfred revised the last four books also is a question which cannot be answered from the manuscripts so far examined. The fact that the French versions likewise contain but two books shows that a two-book text was in circulation in the thirteenth century, and lends probability to Pichon's hypothesis⁹ that Manfred's revision did not extend to the later books.

So far as they can be identified, Manfred's additions are of two sorts. One group, consisting of his own practical observations, is brief and relatively unimportant,¹⁰ their brevity not appearing in the edition, where their beginning is marked by 'Rex,' 'Rex Manfredus,' or 'addidit Rex,' but the end of the passage is not indicated. Collation with the text of the second family shows that these are ordinarily but a few lines in length.¹¹ A good example runs as follows:

Sunt et alie rationes quas Manfredus rex Sicilie, quondam divi Augusti imperatoris huius libri auctoris filius, addendas providit cum librum ipsum coram se legi mandavit. Cum aves omnes tam aquaticae et medie quam terrestres tantum laborent pro acquirendo cibo, eundo redeundo et stando super pedes fatigantur valde, sed, nocte veniente qua quiescere consueverunt, cum stando pedes quiescere volunt vicissim aliquando super uno pede aliquando

⁹ *Bulletin du bibliophile*, xvi. 887.

¹⁰ They are less important than is supposed by Helene M. Arndt, *Studien zur inneren Regierungsgeschichte Manfreds* (Heidelberg, 1911), pp. 152 f.

¹¹ Besides those given above in the text, Manfred's glosses are in the edition as follows: i. 4 'Causa . . . rationabiliter' (26 lines); i. 53 'Inter modos . . . semper in aquis' (18 lines); i. 54 'Preterea aves . . . ut dicit Philosophus in libro celi et mundi' (8 lines); ii. 15 'Necessitas . . . pascuntur' (6 lines); ii. 53 'Amplius . . . falconum' (10 lines); ii. 59 'Et si in hoc . . . inquietat se' (18 lines); ii. 69 'Dimittens falconum . . . portandus' (3 lines). The following also appears in the Vatican text (f. 40 v), but not in the edition: 'REX. Nam tunc . . . motu' (i, c. 54, ed. Schneider, p. 60).

super alio quiescunt, sicut accidit fixis animalibus ambulabilibus dum quiescere volunt stando super pedes, quandoque super uno pede quandoque super altero quiescunt.¹³

A more important class of additions is found in two passages where Manfred uses indications or material left by his father. One of these is c. 60 of book ii, a long chapter which, beginning as follows, shows that the original, or rather the copy then surviving, contained marginal directions for later additions:

REX: Cum non contineretur in hoc libro qualiter falco deciliatus poni debeat ad sedendum in pertica et levare ab ea et de diverberationibus et lesuris que possent in ea contingere, sed esset in margine eius scriptum quod addi deberet presens capitulum, tanquam necessarium prelibatis documentis de falconibus editis, prout melius expedire vidimus duximus inserendum.¹⁴

A longer passage in ii. 18, explaining the insertion of ii. 1-30, shows that the emperor's codex left spaces blank, and that loose notes and drafts were also left by the author:

REX: Cum sepe legeremus et relegeremus hunc librum ut fructum scientie caperemus et ne vitio scriptoris aliquid remanserit corrigendum, finito prohemio invenimus quod dominus pater noster subsequenter ordinaverat capitulum istud primo inter alia capita, videlicet de modis quibus habentur falcones; tamen inter capitulum istud et prohemium erant carte non scripte, quibus repertis existimavimus aliquod aliud capitulum obmissum fuisse quod scribi debebat in eis. Post spatium vero temporis, dum quereremus quaternos et notulas libri istius, eo quod videbamus ipsum ratione scriptoris correctione egere, invenimus in quibusdam cartulis quoddam capitulum intitulatum de plumagio falconum, quo capitulo docebantur differentie falconum per membra et plumagia ipsorum. Nos autem rememorantes dubietatis quam habuimus cum perlegendo librum pervenimus ad capitulum predictum quod prohemium sequebatur, ubi credebamus aliquem fuisse defectum propterea quod cartas non scriptas videramus ibidem, visum fuit nobis quod capitulum de forma membrorum et plumagio falconum illic locari debebat, eo quod capitulum de cognoscendis falconibus capitulum de habendis ipsis precedere debet et quod ignota et incognita, si querantur, reperiri non possunt (quia quod est incognitum qualiter reperitur?), et si accidit inveniri, non est ratione scientie sed fortune. Propter quod, ut inventoris intentio non frustretur et avem unius speciei loco alterius non acquirat, vidimus preponendum esse capitulum quo docetur qualiter cognoscantur falcones et in quibus conveniant et differant ratione plumagii et membrorum, capitulo quo docetur qualiter habeantur.¹⁴

¹³ MS. M, f. 8 v; Schneider, p. 13. ¹⁴ MS. M, f. 90 v; Schneider, p. 140.

¹⁴ MS. M, f. 52 v; Schneider, p. 82; translated by Pichon, p. 890, who (p. 898) also gives the text of *m* and *m* 2.

Another important addition to the text of the *De arte* has been ascribed to Manfred, namely the remarkable illustrations found in the two-book family, but absent from all manuscripts of the second family so far found. This attribution is perhaps strengthened if we accept Erbach's identification of Manfred with a figure in the Vatican codex, and the close parallelism which he finds with the illuminations of the Manfred Bible.¹⁵ Nevertheless, while the figures in their present form date, like the earliest manuscript, from Manfred's time, I do not believe that he first introduced them into the margin of the text, which it appears from his own words he scrupulously respected as his father's work. Indeed the emperor's book captured in 1248 already had notable marginal illustrations.¹⁶ We know from Richard of San Germano that Frederick could draw, designing with his own hands the towers of Capua,¹⁷ and it is probable that he at least gave the directions for these illustrations which are almost a part of the text and plainly go back to a common original. Probably they were omitted from the unrevised archetype of the six-book family. These illustrations constitute a document of the very first importance for the scientific observation and the artistic skill of their age. They must be studied in the Vatican codex,¹⁸ save where others of the same family supply missing or injured figures,¹⁹ and few pages lack such embellishments. The figures of the seated emperor and of one who is probably Manfred are Byzantine in pose and treatment, and the background of architecture and landscape shows little advance on the art of the *Exultet* rolls; but while the grouping is conventional and quite lacking in perspective, the drawing of birds is extraordinarily

¹⁵ *Die Manfredbibel*, c. 2.

¹⁶ See the letter published below, n. 36.

¹⁷ 'Quod ipse manu propria consignavit': *M. G. H., Scriptores*, xix. 372; cf. E. Bertaux, *L'art dans l'Italie méridionale*, i. 717; H. W. Schulz, *Denkmäler der Kunst in Unteritalien* (Dresden, 1860), ii. 167.

¹⁸ For references to reproductions, without colors, see p. 301 above. Venturi, *Storia dell'arte italiana*, iii. 758-768, gives some account of the coloring, which stops at f. 93 v. The water is regularly a striated blue or bluish green, the land green, streams blue, flowers generally red, buildings red, blue, brown, etc. Clothing shows some variety, but the greatest effort to reproduce differences of color is seen in the case of birds.

¹⁹ As on f. 96 of *m*, which corresponds to the *lacuna* between ff. 58 and 59 of *M*.

lifelike. There are in all more than nine hundred figures of individual birds, not only falcons in various positions, with their attendants and the instruments of the art, but a great variety of other birds to illustrate the general matter of the first book. Brilliant in coloring, the work is accurate and minute, even to details of plumage, while the representation of birds in flight has an almost photographic quality which suggests similar subjects in modern Japanese art. Saracen influence has been offered as an explanation,²⁰ but in any case these illustrations rest upon a close and faithful study of bird life, and thus form an essential part of the work which they accompany.

Whatever the occasion for the separate preservation of the first two books, the six books of the *De arte* form a unit. After an introductory chapter on falconry as the noblest of arts, a subject for elaborate debate on the part of later writers,²¹ the first book is a general treatise on the habits and structure of birds. Book ii then deals with birds of prey, their capture and training. The third book explains the different kinds of lures and their uses. The three remaining books describe, in parallel fashion, the practice of hunting cranes with gerfalcons (iv), herons with the sacred falcon (v), and water birds with smaller types of falcons (vi). The style and manner of treatment are the same throughout. There are also several cross references. Thus the first book refers to the second and others,²² the second to those which follow.²³ The preface to the second gives the plan of the

²⁰ Venturi suggests the influence not only of Saracen art but of the Vienna MS. of Dioscorides (facsimile edition, Leyden, 1906), but its drawings of birds (ff. 474-483 v) show no close resemblance to those in the Vatican codex. Erbach, *Die Manfredbibel*, pp. 1, 47-52, finds parallels with the illuminations of the Manfred Bible. In the face of the close agreement of the illustrations in M and m, the difference of treatment noted by Erbach in his figures 14 and 15 does not seem to me sufficient to indicate the derivation of m from another original than M. The 'gallina de India,' correctly described in the text (i, c. 23; MS. M, f. 19), had evidently not been seen by the illustrator. See A. Thomas, "La pintade (poule d'Inde) dans les textes du moyen âge," in *Comptes-rendus de l'Académie des Inscriptions*, 1917, pp. 40 ff.

²¹ Cf. Werth, *Zeitschrift für romanische Philologie*, xii. 391 f.

²² 'De horum autem falconum et accipitrum modis plenius et evidentius manifestatur in secundo tractatu et aliis in quibus nostra intentio per se super eos descendit,' MS. B, pp. 34 f.

²³ 'In hoc tractatu secundo et in ceteris accedemus,' MS. M, f. 45 v; MS. B,

later books.²⁴ Book ii, 71 refers forward to the book on gerfalcons.²⁵ The opening of the third book refers to the preface.²⁶ Book iv refers back to book i,²⁷ and repeats an interesting observation already made in the earlier book.²⁸ Book v refers also to book i.²⁹

Nevertheless it is also apparent that we have not the complete work as the author planned it, probably not even as he executed it. Besides the subjects actually treated in the following books, the preface to book ii promises an account of the care of birds during moulting and of the treatment of their diseases.³⁰ None of this is found in the six-book text, although it was common in works on falconry. There are also specific references in the text³¹ to a subsequent discussion of moulting which does not appear. Moreover the author three times promises a book on hawks, which was evidently to be a separate work.³² Now Albertus Magnus cites the *experta Frederici imperatoris* on the care of hawks,³³ as well as a passage on black

p. 140; the edition (Schneider, p. 69) omits 'et in ceteris.' *Liber* is regularly used of the work as a whole, and *tractatus* of the individual books which compose it; but MS. B, p. 282, has 'ut in 2^o libro huius operis diximus.'

²⁴ MS. M, f. 46 v; MS. B, pp. 142 f.; ed. Schneider, p. 70.

²⁵ 'Dicitur plene in tractatu de venatione girofalconis ad grues,' MS. M, f. 98; MS. B, p. 241; ed. Schneider, p. 152. Note that this remains in the two-book text.

²⁶ 'Intentio nostra ita ut in principio diximus est docere venationes quas faciunt homines cum avibus rapacibus ad predandum non rapaces,' MS. B, p. 281.

²⁷ 'Ut dictum est in capitulo de reditu avium,' MS. B, p. 359. Cf. the reference to bk. iv on cranes in i, 55 (MS. M, f. 42; ed. Schneider, p. 64).

²⁸ MS. B, pp. 54 f., repeated p. 361. See the passage below, p. 312.

²⁹ 'Nidificant autem in canetis paludum et in arboribus prope aquas ut in primo tractatu dictum est,' MS. B, p. 440, where the reference is to the treatment of nesting on pp. 60 ff., where there is a *lacuna* in M and the editions.

³⁰ 'Quedam in conservando sanas etiam quando iam mutant pennas, ut domuncula que dicitur muta, et plumas et multe medicinarum, quedam in curando egrotas ut ipse medicine et vasa necessaria ad dandum ipsas medicinas; de singulis horum instrumentorum dicitur ubi conveniet,' MS. M, f. 46 v; MS. B, p. 143; ed. Schneider, p. 70.

³¹ MS. M, f. 45; MS. B, p. 138; ed. Schneider, p. 68. Also the following from bk. iii: 'dicemus infra quando dicemus de muta et de omni eo quod convenit mutationi,' MS. B, p. 324.

³² MS. M, ff. 49, 57, 58 v; ed. Schneider, pp. 75, 89, 92.

³³ *De animalibus*, xxiii, c. 40, par. 20 (*Opera*, ed. Paris, 1891, xii. 477), for which we should now consult Stadler's edition from the original Cologne MS. (*Beiträge*, xv-

falcons³⁴ which cannot be found in the present text, and in each case he refers at the same time to the *dicta* of King Roger's falconer, William, of whom we shall have more to say. A separate treatise on other forms of hunting which he promised after the completion of this³⁵ may not have been written, if indeed it was ever begun.

On all these questions interesting light is thrown by a letter addressed to Charles of Anjou in 1264 or 1265 by a certain Guilielmus Bottatus of Milan, of which the original is preserved in the Archives des Bouches-du-Rhône at Marseilles:³⁶

Magnifico et glorioso domino K. filio regis Francie Andegav[ie] Provincie et Forc[alquerii] illustri comiti et marchioni Provincie, Guilielmus Bottatus Mediolanensis salutem et paratum devotionis et famulatus obsequium. Quia de magnifice serenitatis vestre prestantia et egregiis liberalitatis strenuitatis prudentie benignitatis et virtutum omnium ac nobilitatum titulis quibus inter cunctos seculi principes vos excellentissime prepolere fama predicat totus mundus testatur et opera laudis argumento certiori declarant, qualibet pretiosi prerogativa decorari preeminencia vestra singulari meretur privilegio. Ego quamvis inter maiestatis vestre subditos per obsequiorum exhibitionem ignotus totis tamen cordis affectibus et ex tota possibilitate devotus ad honoris vestri cumulum, iuxta morem evangelice vidue minutum meum quod mihi contulit facultas offerre cupiens, quoddam in meis facultatibus pretiosum solis excellentibus dignum dominationi vestre tradere preelegi, nobilem scilicet librum de avibus et canibus bone recordationis olim domini FR. gloriosi Romanorum imperatoris quem pre ceteris placidis habere noscebatur precipuum, cuius pulchritudinis et valoris admirationem lingua prorsus non sufficeret enarare; auri enim et argenti decore artificiose politus et imperatorie maiestatis effigie decoratus in psalteriorum duorum voluminis spatio, per compositam capitulorum distinctionem docet ancipitrum, falconum, ierofalconum, asturum, et ceterarum nobilium avium

xvi, 1916-21), p. 1481. On the dates of Albert's works, see F. Pelster, *Kritische Studien* (Freiburg, 1920); and his note on Albert's recently discovered *Questiones super libris de animalibus* of 1258 (*Zeitschrift für katholische Theologie*, xlv. 332, 1922).

³⁴ *Loc. cit.*, par. 10, ed. Stadler, p. 1465; infra, Chapter XVII, n. 17.

³⁵ 'De reliquis vero venationibus precipue de illis in quibus nobiles delectantur vita comite post complementum huius operis dicetur a nobis,' MS. M, f. 3; ed. Schneider, p. 4.

³⁶ B 365, for a photograph of which I am indebted to the archivist, M. R. Busquet. Extracts, omitting the most significant portions, in Papon, *Histoire de Provence* (Paris, 1778), ii, preuves, p. lxxv. The date must fall in or about 1264, when Charles had entered into relations with Lombardy but had not yet taken the title of king in 1265; cf. Sternfeld, *Karl von Anjou als Graf von Provence* (Berlin, 1888), p. 218.

et canum omnium cognitionem, nutrituram, eruditionem, et eorum omnium [in]firmitates et earum causas, signa, et curationes similiter earumdem; illic etiam ostenditur quomodo si [quis ab] aucupe fugerit possit et debeat mirabiliter rehaberi; venationes insuper describit et quomodo versari venator se debeat ad perfectionem artis venatorie demonstratur. Ad decus etiam et utilitatem operis in margine libri ingeniosissime depicti sunt canes et aves, egritudines eorum et earum signa, cure, et eruditiones, et universa sicut per litteram denotantur. Quem a quodam ad cuius manus incasu quem memoratus imperator sustinuit in castris Victorie penes Parmam pervenerat blanda et ingeniosa collatione munerum adquisivi et eum nisi prolixitas itineris et viarum turbassent discrimina celsitudini vestre dudum fueram oblaturus. Quo circa excellentiam vestram reverenter propulsare duxi presentibus quatinus, si dominationi vestre memorati libri placet iocunditas, devotioni mee benignitas vestra dignetur rescribere quid de ipso per me iusseritis faciendum. Quia paratus sum librum ipsum sicut et ubi decreveritis transmittere et cunctis beneplacidis vestris liberaliter exponere me et mea. Valete.

Et ut plenius libri ipsi[us] qualitatem et intentionem vestra comprehendere possit industria, libri ipsius capitula que ob eorum prolixitatem incongruum est literis contexere in cedula per ordinem sicut in ipso seriatim habentur duxi cum presentibus vestre preeminencie destinare, cuius reor in toto orbe similem vel exemplum nisi penes me vobis devotissimum reperiri[s].

The accompanying table of contents has unfortunately long since disappeared, but the description given in the body of the letter is sufficient to show that the two large volumes thus offered do not correspond to any known work, whether the *De arte* or other contemporary treatise. Covering as they did dogs as well as falcons, hunting as well as hawking, and the diseases of such animals as well, they cannot be identified with the *De arte* in its present form nor with the brief treatises of Moamyn or Yatrib described below.³⁷ Conceivably they might have contained a collection of materials on all these topics for the emperor's use, but the gold and silver adornment and the size of the work clearly point to an *édition de luxe* and not a mere set of *documents pour servir*. Moreover, the 'imperial effigy' still meets us on the first page of the Vatican manuscript. I believe we here have described Frederick's own copy of the *De arte*, with illustrations throughout such as the two-book text has preserved, and comprising the lost portions to which he refers in the early books. Captured with his crown and all his treasure in the defeat before

³⁷ Pp. 318-320.

Parma in February, 1248,³⁸ it would seem to have ultimately disappeared with the rest of the scattered loot of the camp. With the completed work thus lost to the enemy, there would be left only such drafts and notes as Manfred describes, very likely kept in some Apulian castle. Indeed if a final official copy had been preserved in the South, Manfred would hardly have undertaken his search for such scattered material.

That Frederick himself was the author can no longer be doubted. Apart from the citations by Albertus Magnus³⁹ and the specific mention by the so-called Nicholas of Iamsilla,⁴⁰ we have the explicit words of Manfred mentioning *dominus pater noster* as the author, as well as the reference to himself in the third person as *imperatoris huius libri auctoris filius*.⁴¹ Furthermore, Frederick appears as the author in the preface, as printed below, and in the further prefatory matter.⁴² If he did not actually write the book with his own hand, he at least directed its composition and dictated the greater part of its substance.

That the *De arte* belongs to the later years of Frederick's reign is also clear. He tells us in the preface that he had had it in mind for about thirty years, and had completed it at the urgent request of Manfred, to whom it is dedicated.⁴³ Manfred, born in 1232,⁴⁴ could hardly have been much interested in such a book before the age of, say, twelve, which would bring us to 1244, even

³⁸ On the capture of Frederick's treasure at Vittoria, see Böhmer-Ficker, *Regesta imperii*, nos. 3666 a, 13649 f.; Salimbene, ed. Holder-Egger, pp. 203 f., 342 f.

³⁹ *De animalibus*, xxiii, c. 40, pars. 10, 20, ed. Stadler, pp. 1465, 1478, 1481.

⁴⁰ 'Ipse quoque imperator de ingenti sui perspicacitate, que precipue circa scientiam naturalem vigeat, librum composuit de natura et cura avium in quo manifeste patet in quantum ipse imperator studiosus fuerit philosophie,' Muratori, *Scriptores*, viii. 496.

⁴¹ *Supra*, pp. 303 f.

⁴² 'Actor est vir inquisitor et sapientie amator divus Augustus Fredericus secundus Romanorum imperator Ierusalem et Sicilie rex. . . . Libri titulus talis est, Liber divi Augusti Frederici secundi Romanorum imperatoris Ierusalem et Sicilie regis de arte venandi cum avibus,' MS. M, f. 1 v; ed. Schneider, p. 2.

⁴³ See the preface printed below, p. 312.

⁴⁴ On Manfred's youth see Böhmer-Ficker, *Regesta imperii*, nos. 4632 b-h, and A. Karst, *Geschichte Manfreds* (Berlin, 1897), p. 1, who discuss the question of his legitimacy. If his formal legitimation could be established and dated, it might perhaps furnish a *terminus post quem* for the dedication.

if we allow that Frederick's own precocity⁴⁵ might have started the idea of the book in his own mind some years before 1214, when he reached the age of twenty. In 1241 the author was still gathering material, as we see from the translation in that year, under his supervision, of the Arabic treatise of the falconer Moamyn rendered into Latin by Theodore the interpreter.⁴⁶ The *De arte* can safely be assigned to the period ca. 1244-50. A date before 1248 has been suggested,⁴⁷ because of the troubles of the following years; if we are correct in the conclusion that Frederick's personal copy was captured in February of that year, this would be the latest limit.

The local allusions refer almost wholly to Apulia, where the emperor's correspondence shows that many of his falcons were kept.⁴⁸ It must be said that such allusions are rare: the form of the treatise is general and scientific, with little illustrative detail and no hunting stories. Only twice does he mention his experiences in the East, once in connection with the flight of Syrian doves,⁴⁹ and again apropos of the Arabian methods of hooding falcons which he introduced into the West under the guidance of oriental falconers.⁵⁰ When he wants to test the incubation of ostrich eggs by the sun's heat, he has experts brought from Egypt to Apulia:

Et hoc vidimus et fieri fecimus in Apulia, vocavimus namque ad nos de Egipto peritos et expertos in hac re.⁵¹

Pelicans are called *cofani* in Apulia.⁵² Young birds should be protected especially against the south winds,⁵³ a precaution

⁴⁵ See the letter describing him as a youth ca. 1207 published by Hampe, *Mitteilungen des Instituts für österreichische Geschichtsforschung*, xxii. 597.

⁴⁶ See below, n. 122.

⁴⁷ Pichon, *op. cit.*, p. 886.

⁴⁸ Böhmer-Ficker, *Regesta*, nos. 2589, 2668, 2705, 2749, 2801, 2807, 2814. See below, p. 324.

⁴⁹ MS. M, f. 39; MS. B, p. 124; ed. Schneider, p. 60. It is not expressly stated that the emperor saw these in the East, but this seems probable.

⁵⁰ MS. M, f. 104 v; MS. B, p. 258; ed. Schneider, pp. 162 f.; *infra*, p. 320.

⁵¹ MS. B, p. 67; lacking in M and the editions. Cf. the experiments with hens' eggs, Chapter XIII, n. 106.

⁵² 'Pellicani qui ab Apuliensibus dicuntur cofani,' MS. M, f. 3 v; ed. Schneider, p. 6. 'Pellicani quos quidam in Ytalia dicunt cofanos,' MS. M, f. 6; ed. Schneider, p. 9.

⁵³ MS. M, f. 58 v; ed. Schneider, p. 92. Cf. Moamyn (MS. Corpus 287, f. 48 v): 'Domus non sit aperta a parte austri.'

necessary in Frederick's dominions only in the land of the sirocco. One passage brings us more specifically to that region of the Capitanata where Frederick's favorite castles lay:

In quadam regione Apulie plane que dicitur Capitanata in tempore reditus gruum capte sunt iam grues cum girofalcis, falconibus et aliis avibus rapacibus, que erant sanguinolente in plumis et pennis sub alis et in lateribus et erant adeo debiles quod vix poterant volare et alique de talibus iam fuerunt capte manibus hominum, cuius rei simile non audivimus in aliis regionibus visum fuisse.⁵⁴

The purpose and method of the treatise can best be seen from the preface, where, planning the first comprehensive and finished work on the subject, he declares his independence of Aristotle on the ground that the philosopher had little or no practice in falconry, and indicates his own reliance on experience and the results of long inquiry among experts brought from a distance. Fragmentary and corrupt in the edition, the preface reads as follows: ⁵⁵

Liber divi Augusti Frederici secundi Romanorum imperatoris, Ierusalem et Sicilie regis, de arte venandi cum avibus ⁵⁶

Pre[sens opus ag]gredi⁵⁷ nos induxit et ⁵⁸ insta[ns tua pe]ltitio, fili karissi[me Man]fride,⁵⁹ et ut removeremus errorem plurium circa presens negocium qui sine arte hiis⁶⁰ que artis erant in eodem negocio abutebantur imitando⁶¹ quorundam libros mendaces et insufficienter compositos de ipso, et ut relinqueremus posteris artificiosam traditionem de materia huius libri. Nos tamen, licet proposuissemus ex multo tem[pore ante] componere presens [opus, dis]tuli-mus fere per trig[inta] annos propositum in scripto redigere, quoniam non

⁵⁴ MS. B, p. 361; repeated from pp. 54 f.

⁵⁵ The text is based on MS. M, with the portions in brackets filled in from B, C, and D. I have not included the introductory matter which follows, since it appears sufficiently in the editions.

⁵⁶ There is no heading in the manuscripts, but the title is given in the introductory matter which follows the preface proper: 'Libri titulus talis est, Liber divi Augusti Frederici secundi Romanorum imperatoris, Ierusalem et Sicilie regis, de arte venandi cum avibus divisus et inquisitivus ad manifestationem operationum nature in venatione que fit per aves.' So M, f. 1 v. The edition omits all after 'avibus.' B and D omit 'de arte venandi cum avibus.' C has further at the end of i, c. 1, 'Divi Augusti Federici secundi Romanorum imperatoris, Ierusalem et Sicilie regis, super librum de avibus et aucupando prologus explicuit.'

⁵⁷ agendi, B C D.

⁵⁸ Om. B C D.

⁵⁹ vir clarissime M.S., B C D, the last letter blotted in C. m has *Tres chiers fils Manfroi*. The edition omits everything to this point.

⁶⁰ habentes, ed.

⁶¹ in imilando, C.

putabamus nos extunc sufficere neque [l]egeramus umquam aliquem preces-
sisse qui huius libri materiam complete tractasset,⁶² particule vero aliquot
ab aliquibus per solum visum scite⁶³ erant et inartificialiter tradite. Ideo⁶⁴
multis temporibus cum sollicitudine⁶⁵ diligenter⁶⁶ inquisivimus ea que huius
artis erant, exercitantes nos mente⁶⁷ et opere in [eadem] ut tandem suffi-
ceremus redigere in librum] quicquit nostra [experientia aut aliorum didi-
cerat,⁶⁸ [quosque⁶⁹ erant ex]perti circa [praticam huius artis] non sine magn[is
dispendi]is ad nos vocavimus⁷⁰ de longinquo vocatosque [undecumque]
nobiscum habuimus, deflorando⁷¹ quicquid melius noverant⁷² eorumque
dicta [et facta] memorie⁷³ commendando. Qui quamvis arduis et inexplica-
bilibus fere nego[ciis] perse]pe prepediti essemus circa regnorum et imperii
regimina, tamen hanc nostram intencionem [predi]ctis⁷⁴ negociis non post-
posuimus. [In scri]bendo etiam⁷⁵ Aristotilem⁷⁶ [ubi oportuit] secuti sumus,
in⁷⁷ pluribus enim sicut experientia didicimus maxime⁷⁸ in naturis a[vium]
quarundam⁷⁹ discrepa]re a veritate [videtur. Propter hoc] non sequi[mur]
principem philosophorum in omnibus, raro namque aut nunquam] vena-
tion[es] avium exercuit], sed nos semper [dileximus] et exercuimus. De multis
vero que narrat in libro animalium dicit quosdam sic dixisse, sed id quod
quidam sic dixerunt nec ipse forsam vidit nec dicentes viderunt, fides enim⁸⁰
certa non proven[it] ex auditu. Quod vero multi multos [libros] scripserunt
et non nisi q[ui]dam de arte], signum est artem ipsam pluri[mum] esse diffi-
cilem et⁸¹ ad[huc] diffusam]. Et dicimus quod aliqui nobiles minus negotiosi
nobis si huic arti attente ope[ram] exhibebunt cum adiu]torio huius libri
[poterunt] meliorem com]ponere, assidue siquidem nova et difficilia emergunt
circa negocia huius artis. Rogamus autem unumquemque nobilem huic
libro ex sola sua⁸² nobilitate intendere debentem⁸³ quod⁸⁴ ab aliquo scien-
tiarum perito ipsum legi faciat et exponi, minus benedictis indulgens. Nam
cum ars habeat sua vocabula⁸⁵ propria quemadmodum et cetera artium et
nos non inveniremus in gramatica Latinorum verba convenientia in omni-
bus, [app]osuimus illa que magis videbantur esse propinqua⁸⁶ per que
intelligi possit⁸⁷ intentio nostra.

For the composition of the *De arte* three kinds of sources were available: systematic works on natural history and related fields

⁶² *completre tentasset*, ed.

⁶³ So B C D. *Sicut*, M.

⁶⁴ So B C D. *Immo*, M. *Et pour ce*, m.

⁶⁵ *et studio*, insert B C D.

⁶⁶ *diligenti*, B C D.

⁶⁷ *in ea*, ed.

⁶⁸ *diderat*, B D.

⁶⁹ *quos quod*, ed.

⁷⁰ *venientes*, ed.

⁷¹ *denotando*, ed.

⁷² *noverint*, ed.

⁷³ *memoriter*, ed.

⁷⁴ *predicta*, M. *presentis negocii*, B C D.

⁷⁵ *contra*, B C D.

⁷⁶ *artem*, ed.

⁷⁷ Om. ed.

⁷⁸ *maximorum*, ed.

⁷⁹ *quarundam avium*, B C D.

⁸⁰ *est*, B C D.

⁸¹ Om. C.

⁸² *sua sola*, C.

⁸³ Here the facsimile of C ends.

⁸⁴ *qui*, ed.

⁸⁵ Om. D.

⁸⁶ *propinqua esse*, B D.

⁸⁷ *posset*, B D.

of science, notably Aristotle's *De animalibus historia*; practical treatises on falconry; and the direct observation and personal inquiries of the author. Let us examine them in this order:

1. Aristotle, says the preface, is followed where required (*ubi oportuit*). He is frequently cited in the first or general book, sometimes by name only,⁸⁸ sometimes specifically as the author of the *Liber animalium*.⁸⁹ Once the reference is merely to a *Liber animalium* which seems to be Avicenna's commentary on Aristotle.⁹⁰ In the Arabic tradition of the Middle Ages the *Liber animalium* comprised the three Aristotelian treatises, *De animalibus historia*, *De partibus animalium*, and *De generatione animalium*, in all nineteen books. Translations of the Arabic text and of Avicenna's commentary had been recently made by Michael Scot,⁹¹ and it is probably in this form that the emperor was acquainted with Aristotle's writings on natural history, for while his references can ordinarily be identified in the *De animalibus historia*,⁹² not all of them can be made to square with the Greek text.⁹³ Doubtless Aristotle was used in other places where he is not cited, but Frederick's treatment is independent, and is

⁸⁸ Ed. Schneider, pp. 5 f., 8, 13, 16, 24, 25, 31, 72 f.; infra, n. 98.

⁸⁹ *Ibid.*, pp. 5, 6, 8, 43.

⁹⁰ 'Oculi sunt instrumenta visus, de quibus quare sint duo, quare in prora capitis locati, et quare altius instrumentis aliorum sensuum, et quomodo constant ex tribus humoribus septem tunicis, dictum est in libro animalium,' MS. M, f. 19; ed. Schneider, p. 29, who points out (i, p. xvi; ii, 17) that this is not found in Aristotle. A long passage deals with these matters in Michael Scot's translation of Avicenna, *De animalibus*, xiii, c. 8, f. 32 r of the printed text (Hain 2220*; copy in the Library of the University of Michigan); cf. the *Canon* of Avicenna, iii, 3, 1, 1, whence the passage is taken by Albertus Magnus, *De animalibus*, i, 2, 7 (ed. Stadler, p. 73). In general the *De arte* has little in common with Michael Scot's version of Avicenna.

⁹¹ Jourdain, pp. 129-134, 327-349; Steinschneider, *H. U.*, pp. 478-483; J. Wood Brown, *Michael Scot* (Edinburgh, 1897), c. 3; Dittmeyer, preface to Teubner edition of the *De animalibus* (1907), pp. xix-xxi; G. Rudberg, in *Eranos*, viii, 151-160, ix, 92-128; H. Stadler, *Albertus Magnus de Animalibus*, i, p. xii; Grabmann, pp. 185 ff.; supra, Chapter XIII, nn. 37 ff.

⁹² Thus p. 5 in Schneider's edition = *H. A.*, viii, 2; p. 6 = viii, 12; p. 13 = i, 1; p. 16 = ix, 34; p. 24 = viii, 12; p. 25 = ix, 10.

⁹³ Thus in the passage printed below, p. 321, Aristotle is made to say that no one has seen a vulture's nest (*Hist. animal.*, ix, 11); but he elsewhere says specifically that nests have been seen (vi, 5). Nor does Aristotle say (ix, 10) that the leader of cranes is permanent, as the *De arte* asserts (p. 25). I have not been able to compare the text of Michael Scot's translation.

much fuller than it could be made by the amplest use of ancient authorities, including Pliny, who is mentioned by name but once.⁹⁴ Thus one may compare the brief treatment of migration by Aristotle⁹⁵ with the account in the first book of the *De arte*,⁹⁶ which uses Aristotle but treats the subject far more amply with the aid of personal observation. Schneider, the learned commentator of Aristotle and Frederick II, declares that the emperor's description of down and feathers is the most careful he knows,⁹⁷ and one has only to read the first book to see that much of it rests upon minute and varied observation. As a matter of fact, Aristotle is cited mainly where the author disagrees with him and seeks to correct him from personal experience: *non sic se habet*.⁹⁸ The Stagyrte is evidently viewed as a man of books, to whom the reader may be referred for learned detail,⁹⁹ but who has little or no practical knowledge of falcons and relies too much on hearsay.¹⁰⁰ To the author he is plainly not 'the master of them that know' birds. Nowhere does Frederick's emancipation from tradition and authority stand out more clearly than in his attitude towards Aristotle.¹⁰¹

With the exception of Aristotle there are few specific citations,

⁹⁴ Schneider, p. 73.

⁹⁵ *Hist. animal.*, viii, 12.

⁹⁶ Cc. 16-23, ed. Schneider, pp. 19-26, with the following *lacuna* filled in from MS. B, pp. 47-56.

⁹⁷ *Reliqua librorum Friderici II*, ii, 41.

⁹⁸ 'Quod ergo Aristotiles dicit in libro animalium, aves uncorum unguium idem sunt quod aves rapaces, non sic se habet,' MS. M, f. 28 v; ed. Schneider, p. 43. 'Non est ergo verisimile quod scribitur ab Aristotile,' MS. M, f. 16 v; ed. Schneider, p. 25. 'Non . . . ut dicit Aristotiles,' MS. M, f. 15; ed. Schneider, p. 24. 'Quamvis Aristotiles dicat contrarium,' MS. M, f. 20; ed. Schneider, p. 31. 'Licet dixerit Aristotiles,' MS. M, f. 47 v; ed. Schneider, p. 72.

⁹⁹ 'Quomodo autem generatur pullus in ovo et que membra ipsius prius apparent et formantur et quod tempus est aptius cubationi et per quantum tempus cubant aves et reliqua constantia circa hec pretermittimus, eo quod sufficienter dictum est in libro animalium (*H. A.*, 6, 1-9) nec spectat ad nostrum propositum, quod est de perfectis avibus rapacibus qualiter docentur rapere aves non rapaces iam exclusas de ovibus et perfectas,' MS. B, p. 67. Cf. MS. M, f. 3 v; ed. Schneider, p. 5: 'Reliqua vero omnia que pretermittimus de naturis avium in libro Aristotilis de animalibus requirantur.'

¹⁰⁰ See the preface, *supra*, p. 313.

¹⁰¹ Yet Biehringer (*Kaiser Friedrich II*, p. 244) can speak of the emperor as 'ein bedingungsloser Bewunderer des Aristoteles.'

and an examination of the literary sources would require a wide range of reading, especially in the scientific literature of the Arabs. As regards general scientific knowledge, the author follows the traditional division into climates, the third, fourth, fifth, and sixth climates being called *nostrae regiones*.¹⁰² Outside the Mediterranean he mentions *Britannia que vocatur Anglia*,¹⁰³ and Iceland, the home of the gerfalcon, between Norway and Greenland.¹⁰⁴ The *Aphorisms* of Hippocrates are cited in one passage.¹⁰⁵ In mathematics he is acquainted with the nature of tangents¹⁰⁶ and the *figura quam geometre dicunt pyramidalem*.¹⁰⁷ He fixes his seasons specifically by the progress of the sun through the zodiac.¹⁰⁸ His terminology and arrangement, as in the introductory matter and the prologue to the second book,¹⁰⁹ show training in the philosophical methods of the age. *Legitur in pluribus libris philosophorum*, we read at the beginning of the chapter on the relative size of male and female birds (ii, 2), but its discussion of humors and complexions shows the influence, not merely, as Niese says,¹¹⁰ of the physiognomic writers, but of the whole physiological tradition of the period; certainly the physiognomic element is not sufficient to support Niese's conjecture of the collaboration of Michael Scot, who died probably before 1236,¹¹¹ and whose *Liber phisionomie*, dedicated to the emperor,¹¹² shows no parallelisms with the *De arte*. At one point¹¹³ there is a citation of the pseudo-Aristotelian *Mechanics*,

¹⁰² 'In nostris regionibus, scilicet sexti climatis quinti quarti et tertii,' MS. B, p. 515.

¹⁰³ *Infra*, p. 323.

¹⁰⁴ 'In quadam insula que est inter Noroegiam et Gallandiam et vocatur theutonice Yslandia et latine interpretatur contrata seu regio glaciei,' MS. M, f. 49 v; ed. Schneider, p. 75. Moamyn has 'nascuntur in partibus frigidis ut in Dacia et Norodia' (MS. Corpus 287, f. 45 v).

¹⁰⁵ MS. M, f. 60; ed. Schneider, p. 94.

¹⁰⁶ MS. B, pp. 52, 440-443.

¹⁰⁷ MS. M, f. 27; ed. Schneider, p. 42.

¹⁰⁸ Ed. Schneider, pp. 2, 69 f.

¹⁰⁹ MS. M, f. 75; ed. Schneider, p. 117.

¹¹⁰ *Historische Zeitschrift*, cviii. 510, n.

¹¹¹ Henry d'Avranches, in *Forschungen zur deutschen Geschichte*, xviii. 482 ff.; *supra*, Chapter XIII, n. 26.

¹¹² Various editions; I have used Hain 14546*, in possession of Dr. E. C. Streeter of Boston, and a copy in the Harvard library (Reichling, no. 1864). Cf. Chapter XIII, n. 94.

¹¹³ 'Portiones circuli quas faciunt singule penne sunt de circumferentiis equidistantibus, et illa que facit portionem maioris ambitus et magis distat a corpore avis

which has not hitherto been noted in a mediaeval version either Arabic or Latin.¹¹⁴

2. Existing works on the art of falconry, Frederick characterizes as incorrect and badly written (*mendaces et insufficenter compositos*), at best dealing in rude fashion with certain small portions of the subject (*particule aliquot*).¹¹⁵ This earlier literature in Latin and the Romance vernaculars¹¹⁶ is known to us only in fragmentary and confused form: the letters to Ptolemy and Theodosius, the book of the enigmatical King Dancus,¹¹⁷ the puzzling references made by Frederick's contemporaries, Albertus Magnus and Daude de Pradas,¹¹⁸ to King Roger's falconer, William,¹¹⁹ and to the 'book of King Henry of England.'¹²⁰ Further study is required before we can venture with confidence into this field. For our present purpose it is sufficient to point out that Frederick draws little or nothing from the known works of these authors, all of them brief and confined to a summary account of the various species of hawks and falcons and to precepts respecting their training and diseases. Even King Roger's falconer, whom Albertus Magnus quotes specifically through the intermediary of Frederick, is not mentioned in the manuscripts of the

iuuat magis sublevare aut impelli et deportari, quod dicit Aristotiles in libro de ingeniis levandi pondera dicens quod magis facit levare pondus maior circulus,' MS. M, fols. 23 v-24; MS. B, p. 89; ed. Schneider, p. 36. See *Mechanica*, ed. Apelt (Leipzig, 1888), especially cc. 1, 3; ed. Bekker, pp. 848-850.

¹¹⁴ Steinschneider, *H. U.*, pp. 229 f.; idem, in *Centralblatt für Bibliothekswesen*, Beiheft 12, p. 74; Grabmann, *Aristotelesübersetzungen*, pp. 200-204, 248 f., does not mention this among the pseudo-Aristotelian works translated under Manfred.

¹¹⁵ Preface, *supra*.

¹¹⁶ See in general Werth, in *Zeitschrift für romanische Philologie*, xii. 146-171; supplemented by Chapter XVII, below. Which of the Romance languages are reflected in the vocabulary of the *De arte* is a question that must be left to the philologists.

¹¹⁷ For the MSS. see Chapter XVII, n. 18.

¹¹⁸ Since Werth wrote, a complete text of Daude de Pradas, *Lo romans dels ausels cassadors*, has been edited from the Barberini MS. by Monaci, in *Studi di filologia romanza*, v. 65-192 (1891).

¹¹⁹ *Infra*, pp. 348-350. Werth, xii. 157-159, xiii. 11.

¹²⁰ *Infra*, p. 348. The reference is apparently to a lost work in Provençal, whether prepared under the king's direction or merely dedicated to him does not appear. Werth, xii. 154 f., 166-171, thinks he can identify it as the source of other passages in Daude.

De arte thus far known. All these writers would have been useful primarily in relation to the treatment of diseases, and this part of Frederick's work has yet to be discovered.

Besides bringing skilled falconers from the East,¹²¹ the emperor also had their writings translated for his own use. At least one such work has come down to us in numerous copies, the treatise of an Arab falconer, Moamyn, *De scientia venandi per aves*, as turned into Latin by Frederick's interpreter Theodore and corrected by the emperor himself at the siege of Faenza (1240-41).¹²² Master Theodore of Antioch, who here styles himself "the least of the emperor's servants," is a characteristic figure of the court.¹²³ His preface, after an elaborate disquisition on the particular pleasure appropriate to every human act, in the course of which the *De anima*, *Nicomachean Ethics*, and *Rhetoric* of Aristotle are cited,¹²⁴ concludes that hunting is the only distinctively royal amusement:

In quantum enim sunt reges non habent propriam delectationem nisi venationem. Considerans autem dominus noster serenissimus imperator Fredericus secundus semper augustus, Ierusalem et Sicilie rex, istius delec-

¹²¹ Preface, supra; also MS. M, f. 104 v (ed. Schneider, p. 163): 'non negleximus ad nos vocare expertos huius rei tam de Arabia quam de regionibus undecumque, ab eo tempore scilicet in quo primitus proposuimus redigere in librum ea que sunt huius artis, et accepimus ab eis quicquid melius noverant, sicut diximus in principio.'

¹²² 'Incipit liber magistri Moamini falconerii translatus de arabico in latinum per magistrum Theodorum phisicum domini Federici Romanorum imperatoris, et correptus est per ipsum imperatorem tempore obsidionis Faventie,' Rome, Biblioteca Angelica, MS. 1461, f. 73; see Narducci, *Catalogus codd. MSS.*, p. 628. The mention of correction by Frederick at the siege of Faenza also appears in a manuscript in private hands and in the French translation mentioned below; see Werth, xii. 175-177. Other manuscripts not mentioned by Werth are: Vatican, Vat. lat. 5366, fols. 1-33 v, 68 v-75 v (saec. xiii); Regina lat. 1446, fols. 31-70 (ca. 1300); 1111; 1227; 1617; Ott. lat. 1811; Urb. lat. 1014; University of Bologna, MS. lat. 164 (153), ff. 33-49 v; Naples, MS. xiv. D. 31; Ambrosian, MS. D. inf. 11. This would seem to be the 'librum de animalibus traductum a domino Theodoro' which is mentioned in the papal library in 1475: Müntz and Fabre, *La bibliothèque du Vatican au XV^e siècle*, p. 271.

¹²³ See Chapter XII.

¹²⁴ 'Operationes quarum principium est per naturam et perfectio per voluntatem et cetera operationes et un[a]queque istarum coniungitur delectationi et tendit ad finem proprium, ut in libro de anima et Nychomachia et rethorica declaratum est': MS. Reg. Lat. 1446, f. 31 v. The *De anima* was then current, but the known versions of the *Nicomachean Ethics* and *Rhetoric*, made in the thirteenth century, have not hitherto been connected with Sicily; see Grabmann, *Aristotelesübersetzungen*, pp. 204-237, 242 f., 251-256; Pelzer, in *Revue néo-scholastique*, 1921; supra, p. 284.

tationis nobilitatem imperatoribus et regibus appropriandam dumtaxat, et videns antecessores suos et contemporaneos reges in delectatione a naturali veritate appropriata sibi et exhibita non sollicitos esse sed potius sompnolentos, servorum sui limitis minimo imperavit presentem librum falconarii transferre de arabico in latinum, ut eorum sit recordatio que sapientium solertia adinvenit per experimentum et principium inveniendorum inposterum. Ego igitur cum obedientia et devotione debita domini mei dignum preoccupavi preceptum presens opus tractatu quaternario dividendo, primo in theoricam huius artis, secundo in medicinas occultarum infirmitatum, tertio in curas ¹²⁶ manifestarum infirmitatum, quarto in medicamen rapivorum quadrupedum.¹²⁶

Ordinarily the manuscripts have five books, the last two devoted to quadrupeds, so that only the first three concern us. Moreover of these the second and third are confined to diseases and remedies, and there is also much of this in the first book, after the preliminary classification of birds of prey, several of which have only their oriental names. It will thus be seen that the treatise, which is mainly a collection of prescriptions, has little in common with the subject-matter of the *De arte* as we have it, and there is no indication that the emperor drew upon it.¹²⁷ Its popularity is attested by the numerous surviving manuscripts of the Latin text and by the French translation made by Daniel of Cremona for the use of Frederick's son Enzo, which must antedate Enzo's imprisonment in 1249.¹²⁸

After Moamyn, Daniel of Cremona dedicated to Enzo ¹²⁹ the

¹²⁶ MS. 'cuius.'

¹²⁶ Vatican, MS. Reg. Lat. 1446, f. 32; cf. Pertz, *Archiv*, xii. 320. This preface begins: 'Sollicitudo nature gubernans . . .' Other manuscripts have a different preface, beginning, 'Reges pluribus delectationibus gaudent,' and mentioning Theodore by name: e. g., Corpus Christi College, Oxford, MS. 287, f. 45. The treatise itself begins: 'Genera autem volucrum rapidarum quibus sepius utitur gens aucupando sunt quatuor et xiii species.' There are important differences between the Corpus and the Vatican texts.

¹²⁷ There are some notes, possibly added at the time of Frederick's revision, e. g. at the end of bk. i: 'Sed qualiter debeat teneri pugillus secundum diversitatem avium tacuit auctor' (Corpus MS. 287, f. 50 v).

¹²⁸ Ciampoli, *I codici francesi della R. Biblioteca di S. Marco* (Venice, 1897), pp. 112-114; Paul Meyer, in *Acti of International Congress of History*, Rome, iv. 78 (1904).

¹²⁹ A Latin work on falconry seems also to have been dedicated to Enzo as king of Torres and Gallura, 'principi nostro excellentissimo E. Turrensi,' a title which Enzo seems to have used interchangeably with that of king of Sardinia: E. Besta, *La Sardegna medioevale* (Palermo, 1908), i. 207 f. See below, Chapter XVII.

French version of another oriental work, the book of Yatrib, Gatriph, or Tarif, in seventy-five chapters, which he declared had first been compiled in Persian and then turned into Latin.¹³⁰ It is not stated that Frederick II had any connection with the Latin translation, but the similarity of the two treatises and the date of the French version make it likely that the Latin text of Yatrib was also due to the emperor's interest in the oriental literature of falconry. Yatrib, whose favorite bird is the sparrow-hawk, gives a mixture of prescriptions and practical maxims, certain of which are attributed to the Great Khan ('Chaycham rex Parthorum') and to 'Bulchassem,' who may have been the author of the Arabic text (ca. 1200).¹³¹ This manual does not appear to have furnished material for the *De arte*.

3. Taken as a whole, the *De arte* gives the impression of being based far less upon books than upon observation and experience, on the part either of the author or his immediate informants.¹³² It is a book of the open air, not of the closet. Frederick's eager desire to learn appears from his inquiries of the Arabs both while he was in the East and later:

Nos quando transivimus mare vidimus quod ipsi Arabes utebantur capello in hac arte. Reges namque Arabum mittebant ad nos falconarios suos peritiores in hac arte cum multis modis falconum, preterea non negleximus ad nos vocare expertos huius rei tam de Arabia quam de regionibus undecumque, ab eo tempore scilicet in quo primitus proposuimus redigere in librum ea que sunt huius artis, et accepimus ab eis quicquid melius noverant, sicut diximus in principio.¹³³

It will be noted here that the emperor not only watched the Saracen falconers, but tried their methods himself and improved on them, just as he himself tested the hatching of eggs by the sun's heat in Apulia.¹³⁴ In the following unpublished passages

¹³⁰ The French translation is found at St. Mark's in the same manuscript with Moamyn (see Ciampoli, *Codici francesi*, p. 113), and the Latin texts also occur together in MS. Angelica 1461, which I have used.

¹³¹ Werth, xii. 173. On falconry at the court of the Great Khan, see Marco Polo, ed. Yule, i. 402-407.

¹³² Cf. Theodore's preface to Moamyn, supra: 'que sapientium solertia adinvenit per experimentum.'

¹³³ MS. M, f. 104 v; MS. B, p. 258; ed. Schneider, pp. 162 f.

¹³⁴ Supra, p. 311.

we see the same spirit of observation applied to the nests of herons, cuckoos, and vultures, to the evidence of intelligence in ducks and cranes, and to the popular fable of the hatching of barnacle geese from trees or barnacles, a legend which he ascribes to ignorance of their remote nesting-places:

Quodam enim tempore apportatus fuit nidus ante nos illius aviculae quae dicitur praenus, et in illo nido erant pulli praeni et una avicula orribilis visu deformis ut nullam fere figuram avis promitteret, ore magno sine pennis pullos multos et longos habens super totum caput usque ad oculos et rostrum. Ut igitur videremus quae avis esset illa, cum diligentibus custodia nutrivimus illos pullos et illam aliam aviculam et postquam perruerunt vidimus quod erant cuculi, ex quo cognovimus cuculum non facere nidum sed ova sua ponit in alieno nido.¹³⁵ . . .

Vidimus tamen aliquando quod quidam ayronum cineriariorum et bisorum nidificant in arboribus altis, ut sunt quercus, fagi, pini, et ulmi, et similes, et etiam super terram, et quando non possunt habere arbores altas et fortes sibi convenientes et sunt ibi salices, tamarisci, aut arbores alie debiles, nunquam nidificabunt in ipsis debilibus, ymo nidificabunt potius in canetis in viis et limosis super cannas, facilius enim est homines et serpentes accedere ad salices et ad huiusmodi arbores parvas quam ad canetas.¹³⁶ . . .

Est et aliud genus anserum minorum diversorum colorum albi¹³⁷ scilicet in una parte corporis et nigri in alia orbiculariter, quae anseres dicuntur berneecae, de quibus nescimus etiam ubi nidificant. Asserit tamen opinio quorundam eas nasci de arbore sicca, dicunt enim quod in regionibus septentrionalibus longinquis sunt ligna navium in quibus lignis de sua putredine nascitur vermis de quo verme fit avis ista pendens per rostrum per lignum siccum donec volare possit. Sed diutius inquisivimus an hec opinio aliquid veritatis continet et misimus illuc plures nuntios nostros et de illis lignis fecimus adferri ad nos et in eis vidimus quasi coquillas adherentes ligno quae coquille in nulla sui parte ostendebant aliquam formam avis, et ob hoc non credimus huic opinioni nisi in ea habuerimus congruentius argumentum, sed istorum opinio nascitur, ut nobis videtur, ex hoc quod berneecae nascuntur in tam remotis locis quod homines nescientes ubi nidificant opinantur id quod dictum est.¹³⁸ . . .

Vidimus vulturem in nido suo unicum ovum ponere et unicum cubare, cuius rei experientiam pluries habuimus quamvis Aristotiles dicat in libro suo animalium¹³⁹ quod nunquam visi fuerunt nidi neque pulli vulturum.¹⁴⁰ . . .

Et iam vidimus de anatibus et aliis pluribus avibus non rapacibus quod [quando] quis appropinquabat nidis suis ipse simulantes se egrotas fingeant

¹³⁵ MS. B, p. 60.

¹³⁶ MS. B, p. 63.

¹³⁷ MS. 'alibi.'

¹³⁸ MS. B, p. 63. On the fable respecting barnacle geese in this period see Gervase of Tilbury, *Otia imperialia*, iii, c. 123; Liebrecht, *Des Gervasius von Tilbury Otia imperialia* (Hanover, 1856), pp. 163 f.; Carus, *Geschichte der Zoologie*, pp. 190-195. It is accepted by Vincent of Beauvais but denied by Albertus Magnus: Thorndike, ii. 464 f.

¹³⁹ *Hist. animal.*, 6, 5; 9, 11.

¹⁴⁰ MS. B, p. 65.

se volare non posse et aliquantulum se cedebant ab ovis aut a pullis et sponte male volabant ut crederentur habere alas lesas aut crura. Ideo fingeant se cadere in terram ut homo sequeretur eas ad capiendum ipsas.¹⁴¹ . . .

Nos autem, quia vidimus, vituperamus cibum qui fit eis de avibus que comedunt pisces, multo magis reprobamus nutrimentum quod fit de piscibus, aves enim nutrite piscibus erunt mollium carniū et mollium pennarum et malorum humorum.¹⁴² . . .

Astutiam et acumen ingenii gruum experti sumus quandoque tantam quod videns posset credere eas habere rationem. Nam postquam iactaveramus nostrum girofalconem ad eas et ipse iam segregaverat unam a societate illarum et persequeretur segregatam et fortuito grus videbat vultures stantes in campis, ipsa confugiebat illuc et stabat tuta inter eas, nam girofalcus ex tunc non audebat invadere ipsam, tanquam si grus scivisset quod girofalcus vultures crederet esse aquilas ad quas non audet accedere.¹⁴³ . . .

The emperor who insists upon seeing for himself, who investigates legends by sending for the evidence, who seels vultures' eyes to ascertain whether they find food by smell,¹⁴⁴ is clearly the same inquirer who shocked the good Salimbene by bringing up children in isolation to test their speech, and by cutting men open to observe the processes of digestion.¹⁴⁵ If the facts are not available, he draws no certain conclusion.¹⁴⁶ *Fides enim certa non provenit ex auditu.*¹⁴⁷

The last four books are made up of generalized experience, with few particular instances. Elaborate in plan and almost scholastic in subdivision, *divisivus et inquisitivus*, they are severely practical throughout, with little or no speculation and no digressions, but with constant reference to the author's own observation and practice. He approves or disapproves various methods, not

¹⁴¹ MS. B, p. 70.

¹⁴² MS. B, p. 149.

¹⁴³ MS. B, p. 401.

¹⁴⁴ 'Non est ergo tenendum quod odoratu sentiant cadaver, ut quidam dicunt, sed potius visu. Quod expertum est per nos pluries, etenim quando vultures erant ex toto ciliati non sentiebant carnes proiectas ante ipsas quamvis odoratum non habent oppilatum. Experti sumus autem quod non rapiunt aves cum famelici sunt et videntibus proieciimus pullum galline et non capiebant ipsum nec occidebant,' MS. M, f. 11-11 v; MS. B, p. 29; ed. Schneider, p. 17.

¹⁴⁵ M. G. H., *Scriptores*, xxxii. 350-353; supra, Chapter XII, n. 112.

¹⁴⁶ 'De tempore cubationis ovorum avium rapacium certi non sumus pro eo quod plures de avibus rapacibus nidificant in regionibus longinquis et nimis remotis a nobis, de quibus noticiam habere non possumus,' MS. M, f. 51; ed. Schneider, p. 78. Cf. MS. B, p. 70: 'De avibus autem non rapacibus nobis est dubium an prius pascant se an pullos an simul cum pullis; cognoscere difficile videtur.'

¹⁴⁷ Supra, p. 313.

dogmatically, but giving his reasons.¹⁴⁸ Thus he prefers a lure of cranes' wings,¹⁴⁹ but mentions the use of hens in Spain and southern France, doves in Arabia,¹⁵⁰ and a pig covered with a hare's skin in *insula de Armenia*.¹⁵¹ In England hunters do not shout when they lure; he has asked the reason, but can get no explanation save ancient custom:¹⁵²

Quomodo loyrant illi de Anglia. Illi vero qui habitant Britanniam que vocatur Anglia non loyrant hoc modo quoniam nunquam loyrant equites neque vociferant sed loyrant pedites et loyrum prohibiunt in altum recte et postquam ceciderit in terram iterum prohibiunt in altum, et hoc faciunt donec falco videat loyrum et incipiat venire ad ipsum. Et postquam ille qui prohibet loyrum videt falconem prope venientem stat et dimittit ipsum venire super loyrum, et est causa hec quare non loyrant equites quia non conveniret et difficile esset prohibere loyrum et descendere iterum ad prohibendum.

Quare non vociferant in loyratione. De vociferatione vero quesivimus, quare scilicet non vociferant, et nesciunt reddere causam nisi tantummodo quod hoc habent ex usu; sed opinamur antiquos eorum loyrando non vociferare pro eo scilicet quod falcones quando etiam mittuntur ad hayrones necessarium est vociferare quoniam ayro reddit se frequenter ad aquas timore falconum et cum vocibus perterretur ut surgat ad aerem sepius, et quod falcones gruerii quando in principio venationis sue, hoc est antequam plures aves cepit, iactentur et emittantur ad sedium ad grues, quando inquam falcones sunt prope gruem, oportet vociferare ad grues ut surgant, falco vero audiens, si assuetus fuerit ad loyrum vociferando, credens se re-

¹⁴⁸ 'Nos vero in loyrando habemus hunc modum,' MS. B, p. 290. 'Quod non reprobamus,' p. 310. 'Nos autem in hoc non facimus magnam vim,' p. 462. 'Hic autem modus volandi idcirco non est laudandus,' p. 499. 'Approbavimus et vidimus,' p. 516. 'Diximus de venatione ad grues quam approbavimus girofalconi propter id quod supra dictum est et venatione ayronis quam approbavimus sacro propter id quod similiter dictum est. Nunc dicamus de venatione que fit ad aves de rivera et specialiter ad anates et sibi similes, et hanc approbamus falconi peregrino,' p. 517 (beginning of bk. vi). 'Nos autem dicimus quod circa mane melius est,' p. 534. 'Hunc morem non multum reprobamus,' p. 540.

¹⁴⁹ MS. B, p. 282.

¹⁵⁰ 'Plures autem gentium in diebus nostris non utebantur loyro quod diximus ad revocandum genera falconum, scilicet [*read sed?*] gallinis vivis ut in Hispania et regionibus eius vicinis occidentalibus, alii columbis vivis ut in Arabia et in ceteris regionibus meridianis et orientalibus; sed nos modum istorum et illorum reprobamus quia non semper de facili possunt haberi aves vive quemadmodum ale avium,' MS. B, p. 285. This passage is also found in what appears to be extracts from bk. iii of the *De arte* in the Bodleian MS. Digby, 152, f. 44.

¹⁵¹ 'Item homines de insula de Armenia et de regionibus vicinis faciunt traynam leporinam suis sacris zacharis et suis layneriis hoc modo,' MS. B, p. 327.

¹⁵² MS. B, pp. 307 f.; MS. Digby, 152, f. 50 v.

vocari ad loyrum per illas voces dimittet grues et redibit ad vociferantem spe loyri. Propter hoc non vociferant in loyrando, et quoniam ipsi venantur ad ayrones et ad grues plusquam ad alias aves, assuefaciunt falcones ad loyrum non vociferando.

Quod nobis videtur. Nos tamen dicimus quod melius est vociferare loyrando quoniam naturale est falconibus abfugere ab homine sed retrahere ipsum falconem ab hac natura non potest fieri nisi cum accidentali magisterio et convenientibus instrumentis; necessarium est igitur omnia illa ordinare per que possit habitus retineri et si perdat recuperari et inter ea per que retinetur aut recuperatur propria sunt loyrum et vox. . . .

For his investigations of falcons, Frederick had at his disposal the whole machinery of his bureaucratic administration, and if the registers of his correspondence had been preserved we should perhaps be able to follow in detail some phases of his literary work. As matters stand, the surviving fragment of a register for a few months of 1239-40 has forty entries concerning falcons, mentioning by name more than fifty of the emperor's falconers.¹⁵³ Thus in November 1239 he writes from Lodi to his superintendent of buildings in Sicily thanking him for information concerning the haunts and nests of herons, which the emperor longs to see for himself.¹⁵⁴ From Cremona he sends to his falconer Enzo for a report on his falcons, how many there are and in what condition, and especially concerning those captured at Malta and the wild ones taken during the season;¹⁵⁵ he orders another to await him with hawks at Pisa,¹⁵⁶ while he sends to Apulia for two hawks just brought by the emissaries of Michael Comnenus.¹⁵⁷ After Christmas he sends for two sacred falcons, the one called 'Saxo' and another good bird.¹⁵⁸ Although winter is not so good a season

¹⁵³ Including Master Walter Anglicus and his son William: Böhmer-Ficker, *Regesta imperii*, nos. 2857, 3082.

¹⁵⁴ 'De sollicitudine et labore quem assumpsisti super inveniendis ayris hayronum et locis ubi degunt te duximus commendandum, quod excellentia nostra satis delectat audire nec minus presentialiter videre peroptat': Huillard-Bréholles, *Historia diplomatica*, v. 510; Böhmer-Ficker, no. 2566. Cf. the *De arte*, MS. B, p. 442: 'In fine vero autumpni et per hyemem magna copia ayronum invenitur in calidis regionis [*sic*] ad quas confugerunt propter cibum acquirendum sibi et propter frigus . . . et maxime habundant in regionibus Egypti.'

¹⁵⁵ Böhmer-Ficker, no. 2584. Besides the entries concerning falcons, there are many respecting dogs and hunting leopards, e. g. nos. 2661, 2662, 2709, 2751, 2783, 2785, 2811, 2882, 2932, 2944, 3029.

¹⁵⁶ *Ibid.*, no. 2585.

¹⁵⁷ No. 2589.

¹⁵⁸ No. 2668.

for such game,¹⁵⁹ he writes from Gubbio in January to his falconer Sardus that he is taking many fat cranes and keeping the legs as the portion of the absent falconer, who should come at once¹⁶⁰ to that noblest of sports, the hunting of cranes with gerfalcons, which the emperor describes in his fourth book.¹⁶¹ The next day he sends a valet for training peregrine falcons in the Sicilian kingdom,¹⁶² and two days later sends from Foligno for three falcons and a *turziolus*.¹⁶³ Ten days thereafter he sends falcons and dogs back to the south,¹⁶⁴ and various orders provide for wages and equipment of falconers.¹⁶⁵ In February he is concerned with the moulting of falcons, which are distributed among his barons to be kept during that period.¹⁶⁶ In March we read of the training of falcons in the south.¹⁶⁷ In May the emperor, once more in the Capitanata, sends nineteen falconers to Malta for birds,¹⁶⁸ and orders that all the sparrow-hawks in the county of Molise shall be brought together under a special keeper.¹⁶⁹ When he wants live cranes for training falcons, he commands the justiciars of Terra di Lavoro, Bari, and the Capitanata to have as many as possible caught and sent to the justiciar of the Capitanata to be kept at the royal residences.¹⁷⁰

Such glimpses of the emperor's daily occupations show his passion for falconry, pursued in the midst of more urgent concerns of state and not merely in the intervals of relaxation at his palaces, and illustrate the devotion of the ideal falconer, who is represented in the *De arte* as desiring primarily neither fame nor a plentiful supply for the table, but to have the best falcons. The successful hawker cannot be 'indolent or careless, for this art requires much labor and much study.'¹⁷¹ Frederick's pride

¹⁵⁹ *De arte*, iv (MS. B, pp. 359-361).

¹⁶⁰ Böhmer-Ficker, no. 2745; cf. 2744. The hunting of cranes is also mentioned in no. 2814.

¹⁶¹ 'Grues sunt famosiores inter omnes aves non rapaces ad quas docentur capiendas aves rapaces, et girofalcus nobilior est a vibus rapacibus et est avis que melius capit grues quam alii falcones et que melius volat ad ipsas.' MS. B, p. 282.

¹⁶² Böhmer-Ficker, no. 2749.

¹⁶³ *Ibid.*, no. 2753.

¹⁶⁴ No. 2807.

¹⁶⁵ Nos. 2539, 2591, 2680, 2706, 2744, 2814, 2817, 2856 f., 2863, 2907, 2929, 3082.

¹⁶⁶ Nos. 2800, 2855, 2863, 2903.

¹⁶⁷ No. 2907.

¹⁶⁸ No. 3082.

¹⁶⁹ No. 3056.

¹⁷⁰ No. 2801.

¹⁷¹ MS. M, ff. 68-69; ed. Schneider, pp. 107-109.

in his mastery of the art is illustrated by the story that, when he was ordered to become a subject of the Great Khan and receive an office at the Khan's court, he remarked that he would make a good falconer, for he understood birds very well.¹⁷² And if we doubt this characteristic tale, we have at least his own prefatory words concerning falconry, *nos semper dileximus et exercuimus*.

Keen sportsman as he was, Frederick II was not the man to lose himself wholly in the mere joy of hawking. His mind had also to be kept busy, his questions answered, his knowledge extended and put in order. The lessons of the *De arte (scientia huius libri)* ¹⁷³ are essential for the falconer, but it is more than a manual of practical instruction. The first book and the earlier chapters of the second have a systematic and scientific character which give them an important place in the history of mediaeval zoölogy, while the whole treatise is pervaded by the spirit of actual observation and experiment. While the author uses the ancients, he is not blinded by them, and does not hesitate to correct them when necessary. So far as the Renaissance is characterized by the spirit of free inquiry and emancipation from authority, the *De arte* lends support to those who would begin the new movement at the court of Frederick II.

¹⁷² Albericus Trium Fontium, *M. G. H., Scriptores*, xxiii. 943.

¹⁷³ MS. M, f. 68 v; ed. Schneider, p. 108.

CHAPTER XV

THE ABACUS AND THE EXCHEQUER¹

A QUESTION of special obscurity respecting the early history of the English exchequer is the origin and introduction of its distinctive system of reckoning, *secundum consuetum cursum scaccarii non legibus arismetis*.² Inasmuch as the exchequer table was merely a peculiar form of the abacus,³ some light on the problem may be expected from an examination of treatises upon this method of computation, particularly such as can be connected in any way with England and with the king's court. The only compend of this sort which has so far been associated with the English court was written by a royal clerk named Thurkil, and is preserved in a manuscript of the twelfth century in the library of the Vatican. Although it has been in print since 1882,⁴ it has not heretofore been studied from this point of view. It begins:

Socio suo Simoni de ROTOL' TURCHILLUS compotista salutem. In his regunculis quas dilectioni tue, venerande amice, super abacum scripsi et obtuli, licet quid quod tibi displiceat forte reperias, non me tamen, more quorundam quibus nulla inest bonitatis soliditas, iniquo dente livoris mordeas, sed si adhuc solite discretionis es, mee impericie pie ignoscas et, si alicubi necesse est, sic et de meo demas et de tuo addas ut eas sapienter corrigas. Non enim usque adeo perverse mei amator sum ut quod ego inveni pro perfecto defendam, cum in humanis inventionibus, ut ait Priscianus, nichil sit perfectum.

¹ Revised from my article in *E. H. R.*, xxvii. 101-105 (1912), which was written before the appearance of R. L. Poole, *The Exchequer in the Twelfth Century* (Oxford, 1912).

² *Dialogus de Scaccario*, i. 5 (ed. Oxford, 1902, p. 75). On this phase of the origin of the exchequer, see Round, *Commune of London*, pp. 74 f.; the Oxford edition of the *Dialogus*, pp. 42 f.; Petit-Dutaillis' edition of Stubbs, i. 806-808; Poole, *op. cit.*, ch. iii.

³ It is worth noting that, whereas the analogy of the chessboard is the only argument hitherto adduced for the existence of transverse lines on the exchequer table, such lines are regularly found in the abacus as described in the mediaeval treatises.

⁴ Vat. MS. Lat. 3123, ff. 55-63 v, edited by Narducci, in *Bullettino*, xv. 111-154. Cf. Eneström, in *B. M.*, viii. 78 f., 415; and on the Vatican MS. see also Bethmann, in Pertz's *Archiv*, xii. 233-235.

Et si quid in huius inventionis scintillula utilitati tue dilectissime conducibile inveniis, nec mihi nec tibi, cuius gratia hoc specialiter edidi, verum venerabili viro magistro nostro Guillelmo R̄ [et⁶], quem universis calculatoribus hodie viventibus preferre non timeo, ascribas queso. Vale.⁶

The date of the treatise can be approximately fixed by the following sentence:

Ducentę marce sunt inter .ii. d.⁴ hidas dividende, que sunt hide totius Eisexie, ut ait Hugo Bocholaudie.⁷

Two men of this name are known in the twelfth century, one of them sheriff of eight counties under Henry I,⁸ the other a tenant in Berkshire in 1166 and sheriff of the same county a few years later.⁹ There is, however, nothing to connect the younger Hugh de Bocland with Essex, which is in other hands throughout the Pipe Rolls of Henry II, whereas the elder Hugh can be traced as sheriff of Essex in 1101 and the years immediately following.¹⁰ He is found in charters as late as 1115,¹¹ but by 1117 his lands are in other hands¹² and in 1119 he has been succeeded in his principal office, the shrievalty of Berks.¹³ Our treatise is thus anterior to 1117 and may even go back to the reign of William Rufus, under whom Hugh de Bocland, one of this king's 'new *curiales*,'¹⁴ can be traced as witness to the king's charters¹⁵ and

⁶ The MS. here has a sign which is apparently meant for &, but which is probably a corruption of an original R̄, the R̄ now in the text having been inserted later above the line.

⁷ P. 135 of the edition. The edition is for the most part careful, but I have made an occasional correction from the MS.

⁸ P. 153. Narducci noted the mention of Hugh de Bocland, but (pp. 128-130) was misled into placing the treatise in the second half of the century by identifying the author with a Thurkil of Essex mentioned in a vision of 1206. Cf. Poole, p. 48, n.

⁹ *Chronicon Monasterii de Abingdon*, ii. 117 *et passim*; Ordericus Vitalis, iv. 164; *E. H. R.*, xxvi. 490; xxxiii. 156; xxxvii. 163.

¹⁰ *Red Book*, i. 306 f; Eyton, *Itinerary of Henry II*, pp. 313, 337.

¹¹ Round, *Goffrey de Mandeville*, p. 328; *Monasticon*, i. 164; vi. 105; *Cartularium S. Iohannis de Colecestria*, i. 22, 24, 27.

¹² He is addressed in two charters of Reginald, who became abbot of Ramsey in 1114 (*Cartularium Monasterii de Ramseia*, i. 130, 133); and attests late in 1115 (Farrer, *Itinerary of Henry I*, no. 361).

¹³ J. Armitage Robinson, *Gilbert Crispin*, p. 154 f; Farrer, no. 376.

¹⁴ *Chron. Abingdon*, ii. 160.

¹⁵ Morris, in *E. H. R.*, xxxiii. 156.

¹⁶ Davis, *Regesta*, nos. 444, 466.

as sheriff of Bedfordshire,¹⁶ Berkshire,¹⁷ and Hertfordshire,¹⁸ the last of which was regularly held with Essex. Indeed a charter of the Red King for Colchester seems to connect him directly with Essex.¹⁹

Neither Thurkil nor his colleague Simon 'of the rolls,'²⁰ who must likewise have been an expert with the abacus, has been identified, but both were evidently members of the royal *curia*, since Thurkil says, speaking of ordinary division and division by differences:

Si quis tamen cur de utroque divisionum genere, cum ut nunc dictum est ad unum utroque redeant, scripsi quesierit, propterea inquam quod ille ad quoslibet, iste vero non nisi ad curiales tantum pertinent.²¹

Their master, 'Guillelmus R,' who is mentioned in two other passages,²² has been sought in vain among the abacists of this period. He is plainly no common teacher or computer, for he has invented a special sign for the *semuncideunx*²³ and is authority for the statement that the conventional figures of the abacus came from the Pythagoreans but their names from the Arabs. The titles *donnus* and *venerabilis vir* would seem to indicate that he was a bishop or an abbot, but I have found no contemporary prelate of this name who would justify Thurkil's characterization, unless it be William, bishop of Syracuse, ca. 1104-15, who is said to have been of Norman origin and whom Adelard of Bath addresses as *omnium mathematicarum artium eruditissime*.²⁴

¹⁶ *Ibid.*, no. 395.

¹⁷ *Chron. Abingdon*, ii. 43.

¹⁸ The Hertfordshire text of Henry's coronation charter is addressed to him: *Transactions of the Royal Historical Society*, new series, viii. 33, 40; Liebermann, *Gesetze*, i. 521. He is also addressed by William II in a charter concerning Middlesex (Robinson, *Gilbert Crispin*, p. 138, no. 12) and appears as a royal officer in Sussex in *E. H. R.*, xxvii. 103; Davis, no. 416; Haskins, *Norman Institutions*, p. 81.

¹⁹ Davis, no. 471.

²⁰ Narducci (p. 121) extends 'Rotolandia,' which seems to me much less likely than 'rotolis.'

²¹ P. 148.

²² Pp. 136, 150.

²³ 'Pars illa que est semuncideunx non est in frequenti usu, unde characterem non habet quo designetur,' says Gerland: St. John's College, Oxford, MS. 17, f. 51 v; British Museum, Add. MS. 22414, f. 7; not in the text as printed in *Bullettino*, x. 603.

²⁴ *De eodem et diverso*, ed. Willner, p. 3. See Chapter II, n. 8.

If some one must be found who would satisfy also the 'R,' we might turn to William de Ros, abbot of Fécamp from 1079 to 1107 and previously canon, dean, and archdeacon of Bayeux and monk of Caen.²⁵ The epitaphs and eulogies written after his death celebrate, as is usual, only his Christian virtues,²⁶ but we learn from Baudri of Dol and the Fécamp annalist that he was a man of much learning.²⁷ We hear of the eminence of Fécamp in music in his time,²⁸ and of the vain efforts of Abbot Thurstin to introduce the chant of a certain William of Fécamp into Glastonbury.²⁹ Nothing is said specifically of the mathematical attainments of William de Ros, but, like Thurstin, he was one of the Bayeux clerks of promise whom Bishop Odo sent to study at Liège,³⁰ then an outstanding centre of mathematical learning.³¹

Besides the treatise on the abacus the Vatican manuscript contains a related tract addressed by Thurkil to a certain Gilbert and explaining the conversion of marks into pounds and vice versa.³² That Thurkil was also the author of a work on the ecclesiastical calendar we know from Philip de Thaon, who, writing in 1119, cites six times *Turkils li vaillanz*, along with Bede, Heleric, and Gerland, on such topics as the length of the year and the lunar month, embolisms, epacts, and the date of St. Matthias' day in leap year.³³ Two of the citations are from the fourth

²⁵ Ordericus Vitalis, ii. 129, 243 f.; iii. 266; iv. 269-272; cf. *Archaeologia*, xxvii. 26. A Guillelmus de Ros still appears as canon of Bayeux in 1092-93: *Livre noir*, nos. 22, 23.

²⁶ Ordericus, iv. 270 f.; Geoffrey of Winchester, in Wright, *Anglo-Latin Poets*, ii. 155; epitaph discovered in 1875 in *Comptes-rendus de l'Académie des Inscriptions*, 1875, pp. 306-309, and *Bulletin des Antiquaires de Normandie*, vii. 497-502.

²⁷ 'Admodum literatus': *Auctarium Fiscannense*, in Robert of Torigni, ed. Delisle, ii. 149. 'Magna litterarum peritia preditus': Baudri, *Epistola ad Fiscannenses*, in *Neustria pia*, pp. 227-233; Migne, clxvi. 1173-82. ²⁸ Baudri, *ibid.*

²⁹ William of Malmesbury, *De antiquitate Glastoniensis ecclesie*, ed. Hearne, p. 114; Carlez, "Le chant de Guillaume de Fécamp," in *Mémoires de l'Académie de Caen*, 1877, pp. 233-251. The 'Kalendarium Willelmi abbatis' formerly in the Fécamp library (*Catalogue des MSS. des départements*, i, p. xxvi) is apparently merely the service-book now at Rouen, MSS. 237-238.

³⁰ Ordericus, iii. 265 f.

³¹ See below, n. 53.

³² Printed in *Bullettino*, xv. 127 f. In the MS. (f. 64 v) this is followed without a break by a chapter 'De collectione diei qui dicitur saltus lune,' the beginning of which indicates a continuation: 'Item si scire volueris quot momenta . . .'

³³ *Li cumpoz*, ed. Mall, lines 2080, 2214, 2361, 2399, 2498, 3208.

and ninth chapters of Thurkil's third book,³⁴ so that identification ought to be easy, but I have not succeeded in discovering the work cited, which might aid in fixing the author's date and perhaps other facts concerning him. One is tempted to seek this treatise in the pages which precede the account of the abacus in the Vatican manuscript³⁵ and perhaps in the chapter on the *saltus lune* which follows, though none of this rather confused material is divided into books and chapters. The length of the lunar month is the same as that cited by Philip de Thaon from Thurkil and Bede,³⁶ and there are other resemblances but nothing sufficiently specific to identify the author. The date is 1102,³⁷ and Gerland is already quoted as an authority.³⁸ As to Thurkil's identity we can only guess, for the name is by no means unique in the early twelfth century. Perhaps one conjecture may be hazarded, namely the monk Thurkil of Westminster, who appears in 1122 shortly after the abbot Gilbert Crispin among the deceased members of the convent inserted in the mortuary roll of Vitalis of Savigny.³⁹ If this should be our Thurkil, the Gilbert to whom the tract on the mark is dedicated may be Abbot Gilbert, himself *doctus quadrivio*,⁴⁰ who died in 1117.

In the treatise on the abacus, Thurkil, like other abacists, confines himself to multiplication, division, and fractions, and so

- ³⁴ 2399 E Turkils el tierz livre
E el nofme chapitle
.
2498 Turkils en sun escrit
E enz el quart chapitle
Que il fait del tierz livre.

³⁵ MS. Vat. Lat. 3123, ff. 44 v-55; also in B. N., MS. Lat. 11260, ff. 24-31 v.

³⁶ 29 days, 12 hours, 29 moments, 348 atoms: *Li cumpoz*, lines 2496 ff.; MS. Vat. Lat. 3123, f. 50 v; MS. Lat. 11260, f. 28; also in British Museum, Royal MS. 15 B. iv, f. 141 v (fragments apparently of a related treatise).

³⁷ MS. Vat. Lat. 3123, f. 46 v; MS. Lat. 11260, f. 25.

³⁸ MS. Vat. Lat. 3123, f. 54; MS. Lat. 11260, f. 30 v.

³⁹ Delisle, *Rouleau mortuaire du B. Vital* (Paris, 1909), no. 100; J. A. Robinson, *Gilbert Crispin*, p. 27.

⁴⁰ Robinson, *op. cit.*, p. 26. If Simon de rotol' be interpreted as Simon of Rutland, it should be remarked that Westminster Abbey held the churches of Rutland as Alberic the Lotharingian clerk had held them: Davis, *Regesta*, nos. 381, 382, 420; Round, *Commune of London*, pp. 36-38.

throws no light upon the procedure at the exchequer table, which consisted merely of addition and subtraction. The king's clerks had, however, frequent occasion to multiply and divide, and Thurkil's illustrations are obviously drawn from familiar subject-matter, as in his brief account of the relation of marks to pounds. What is the product when twenty-three knights owe you six marks each? Divide £800,¹³⁷ among 1009 knights. The most interesting example is the one relating to Essex, which is printed above. A payment of two hundred marks is assessed against a shire and the amount due from each hide is to be determined — just such a case as would arise in levying the *assisa communis* described in the *Dialogus*, and just the amount which Essex pays as *donum* in the early years of Henry II.⁴¹ This coincidence can hardly be accidental, but indicates rather that the *assisa communis*, as a supplement to Danegeld and a corrective to its unequal assessment, goes back to the reign of Henry I, in which case it should probably be identified with the *novo geldo propter hidagium* mentioned between 1100 and 1107 in a charter for Westminster.⁴² The hidation which is taken as the dividend, 2500, has already shrunk from the Domesday quota of 2650⁴³ but has not yet reached 2364, which is the number of geldant hides in the Pipe Roll of 1130.⁴⁴ Moreover, it is reported on the authority of Hugh de Bocland, who as sheriff would know the actual number of hides liable in such a case. A meagre illustration of this sort is especially irritating when we think of what Thurkil might have told us. It may be argued that his failure to mention so interesting a form of the abacus as the exchequer table is an indication that it was not yet in existence; but the answer is that there is no place for this in his treatise,⁴⁵ nor

⁴¹ *Dialogus*, i, 8, 11 (ed. Oxford, 1902, pp. 95, 103); *Pipe Roll*, 2-4 Henry II, pp. 18, 133. Cf. Maitland, *Domesday Book and Beyond*, pp. 473-475.

⁴² Robinson, *Gilbert Crispin*, p. 141, no. 19.

⁴³ This is the number given by Maitland, p. 400. Rickwood argues for 2800: *Transactions of the Essex Archaeological Society*, new series, xi, 249.

⁴⁴ Pp. 59 f.

⁴⁵ 'In multiplicacione et divisione constat hec scientia,' p. 137. 'Huius artis tota pene utilitas in multiplicacione ac divisione constat': Bodleian, MS. Selden supra 25, f. 112 (brief treatise on the abacus).

should we expect an account of its relatively simple operations in a work which had to explain the 'iron process' of division by means of differences. The evidence that royal clerks were familiar with the abacus at the beginning of the twelfth century implies rather that it was already in use for balancing the royal accounts.

That "it was the introduction of this instrument in the form of the Exchequer which made an epoch in the history of the English Treasury" has now been brought out most convincingly by Poole. He argues that Englishmen became acquainted with the abacus in France, probably in the schools of Laon, and calls attention to the fact that Adelard of Bath studied at Laon, wrote on the abacus, and seems to have been in the employment of the court of Henry I.⁴⁶ Nevertheless I am inclined to place the introduction of the abacus earlier and to associate it rather with the movement which connected England with the schools of Lorraine. There is nothing as yet to show whether Thurkil's relations were with Laon or Lorraine, but two of his contemporaries mention the abacus in a way that brings it into connection with the *curia regis* at a still earlier date. Robert, who became bishop of Hereford in 1079, is described by William of Malmesbury as *omnium liberalium artium peritissimus, abacum precipue et lunarem compotum et celestium cursum astrorum rimatus*.⁴⁷ At his death in 1095 the prior of Winchester, Geoffrey, wrote of him:

Non tua te mathesis, presul Rodberte, tuetur,
Non annos aliter dinumerans abacus.⁴⁸

It is not certain that Robert's writings included a treatise on the abacus,⁴⁹ but the passages just cited are conclusive as to his

⁴⁶ *The Exchequer in the Twelfth Century*, pp. 46-57. Note also that a Ralph of Laon witnesses a Bath charter of 1121: *Two Chartularies of Bath Priory*, ed. W. Hunt (1893), i. 51.

⁴⁷ *Gesta Pontificum*, p. 300.

⁴⁸ Hardy, *Descriptive Catalogue*, ii. 76; Wright, *Anglo-Latin Satirists and Epigrammatists*, ii. 154. It may be observed, in connection with what is said later, that Geoffrey was a native of Cambrai: *Gesta Pontificum*, p. 172.

⁴⁹ The mathematical tables ascribed to him by Bale (edition of 1557, ii. 125) may be simply an inference from the phrases of the chroniclers, but the commentary on Marianus Scotus is evidence of his attainments in chronological computation.

special familiarity with this method of reckoning and the fame it brought him in England. Now Robert was a royal chaplain before his elevation to the bishopric,⁶⁰ and heard pleas in the Red King's court only a few months before his death.⁶¹ Moreover, he was a native of Lorraine,⁶² which in the eleventh century was the chief centre for the study of the abacus and produced such eminent mathematicians as Heriger of Lobbes, Adelbold of Utrecht, Reginbald of Cologne, and Ralph and Franco of Liège;⁶³ and his zeal for the introduction of Lotharingian culture into England is seen in his importation of the chronicle of Marianus Scotus and his use of Charlemagne's church at Aachen as the model for his own cathedral.⁶⁴ Robert was, of course, not the only connecting link with the lands beyond the Scheldt in this period, for Lotharingian influence had been strong at the court of Edward the Confessor,⁶⁵ and among the prelates of his own time Walcher of Durham had been a clerk of Liège and Thomas of York and Samson of Worcester had apparently been at school there;⁶⁶ while Walcher, prior of Malvern, was another Lotharingian abacist, who appears in England by 1091.⁶⁷ Still, Robert's knowledge of the abacus was evidently considered

⁶⁰ Annals of Winchester, in *Annales Monastici*, ii. 32.

⁶¹ *Gesta Pontificum*, p. 302; *Vita Wulstani*, in *Anglia Sacra*, ii. 268.

⁶² *Gesta Pontificum*, p. 300.

⁶³ 'Cogis enim et crebris pulsas precibus ut tibi multiformes abaci rationes persequar diligenter. . . . Quod si tibi tedium non esset harum fervore Lotharienses expetere, quos in his ut cum maxime expertus sum florere. . . .' Bernelinus, in Olleris, *Oeuvres de Gerbert*, p. 357; and Bubnov, *Gerberti Opera mathematica*, p. 383. See further the passages cited in Bubnov, p. 205; Tannery and Clerval, *Une correspondance d'écolâtres au XI^e siècle*, in *Notices et Extraits des MSS.*, xxxvi. 487-541; Cantor, i. 872-878, 880-890; Kurth, *Notger de Liège* (Paris, 1905), c. 14, especially pp. 282-286; Dute, *Die Schulen im Bistum Lüttich im 11. Jahrhundert* (Marburg Programm, 1882); B. Lefebvre, *Notes d'histoire des mathématiques* (Louvain, 1920), pp. 93-114; Manitius, *Lateinische Literatur*, ii. 778-786.

⁶⁴ *Gesta Pontificum*, p. 300 f. For the chronological tract in which Robert elaborated the introduction of Marianus, see W. H. Stevenson, *E. H. R.*, xxii. 72 ff.

⁶⁵ Freeman, *Norman Conquest*, 3d edition, ii. 81, 455 f., 598-601, 693-698; Steindorff, *Heinrich III.*, ii. 67 f.; Pauli, in *Nachrichten* of the Göttingen Gesellschaft der Wissenschaften, 1879, pp. 324-330; Round, *Commune of London*, pp. 36-38.

⁶⁶ Simeon of Durham, i. 9, 105; ii. 195; Ordericus, iii. 265 f.

⁶⁷ *Supra*, Chapter VI, n. 5. A Lotharingian clerk named William appears between 1107 and 1137: Napier and Stevenson, *Crawford Charters*, p. 31.

something new and exceptional in England, and had doubtless been brought from his Lotharingian home. We can at least be sure that the abacus was known to members of the *curia* under William Rufus and, since Robert's promotion dates from 1079, even under the Conqueror, and for light upon its introduction we may well look in the direction of Lorraine.

CHAPTER XVI

NIMROD THE ASTRONOMER¹

LI CUMPOZ of Philip de Thacon,² written in 1119 and important as the earliest monument of Anglo-Norman literature, possesses a special interest for the student of astronomy and chronology as being at once the earliest treatment of the subject in French and one of the latest expositions of the knowledge current in the period just preceding the advent of Arabic astronomy. Of the authorities whom the author cites, three, Bede, Helperic, and Gerland, are the standard writers on these subjects in the earlier Middle Ages,³ and the citations are sufficiently specific to render easy a comparison with their works. A fourth, Turkils, though unknown to students of *Li cumpoz*, is plainly to be identified with Turchillus compotista, an Anglo-Norman contemporary of Philip who wrote before 1117 a treatise on the abacus which is of much interest for the early history of the English Exchequer; but the quotations are not from this work and are evidently derived from a treatise on chronological computation, consisting of at least three books, which has not yet come to light.⁴ There remains a fifth, called Nebrot, Nebrod, Nebroz, Nembroz, or Nembroth, likewise unidentified by the commentators on Philip, who raises a number of interesting problems. Of the five passages in which he appears, the first, at the close of the chapter dealing with Aries, reads:

¹ Revised from *The Romanic Review*, v. 203-212 (1914).

² E. Mall, *Li Cumpoz Philipe de Thaün mit einer Einleitung* (Strasbourg, 1873); T. Wright, *Popular Treatises on Science* (London, 1841), pp. 20-73; Paul Meyer, "Fragment du Comput de Philippe de Thacon," in *Romania*, xi. 70-76 (1911). Cf. Langlois, *La connaissance de la nature et du monde au moyen âge*, pp. 2-3, 11.

³ Cf. Chapter V, *supra*.

⁴ See the preceding chapter. G. L. Hamilton, who first suggested the identity of Turkils and Turchillus (*Romanic Review*, iii. 314 (1912)), made the mistake of thinking that Philip cites the treatise on the abacus, which contains nothing on the subjects treated in *Li cumpoz*. That the work of Thurkil here cited comprised at least three books is clear from ll. 2399 and 2500.

1249 E ço Helperis dit
 Pur veir en sun escrit
 E Bede e Gerlanz
 E Nebroz, li vaillanz.

At the close of the account of Leo, speaking of the significance of the lion's tail, Philip says:

1345 E ço truvum escrit
 Que dans Nebroz le dit.

In the discussion *De saltu lune* we find:

2359 De ço trai a guarant
 Maistre Bede e Gerlant,
 Turkil e Helperi
 E Nebrot, ki eissi
 L'unt enquis e guardet.

Apropos of lunations he says:

2495 Ço dit Bede e Gerlanz
 E Nebroz, li vaillanz,
 E Helperis le dit,
 Turkils en sun escrit,
 E ens el quart chapitle
 Que il fait del tierz livre.

Finally concerning the septuagesimal term:

3341 Eissi cum Gerlanz dit,
 Nebroz en sun escrit.

To Philip, accordingly, Nebroz is an authority on astronomical and chronological matters of the same type as Bede, Helperic, Gerland, and Thurkil. No writer of this name, however, is known to have existed in the Middle Ages, and the form suggests at once the *Νεβρωθ* of the Septuagint and the Nimrod of modern versions of Genesis, whose name has furnished a fruitful field for the speculations and conjectures of orientalists.⁵ The Biblical Nimrod is, of course, no humble chronologer but a king, a mighty one upon the earth, a mighty hunter before the Lord. How can we make an astronomer out of him? An answer to this question would involve studies of the Oriental Nimrod legends which lie beyond the purpose of this article. An astronomer he had certainly be-

⁵ See Cheyne's article in the *Encyclopaedia Biblica* and the authors there cited.

come in men's minds by the sixth century, when John Malalas makes him king of the Persians and their master in astronomy and astrology,⁶ and an astronomer he remained to the men of the Middle Ages. Astronomical tables under his name are known to have been current in Arabic, and his astronomy meets us in the twelfth century, when Philip's contemporary, Hugh of St. Victor, says, *Aiunt quidam Nemrod gigantem summum fuisse astrologum, sub cuius nomine etiam astronomia invenitur*. He is bracketed with Hyginus and Aratus by William of Conches,⁷ and in the following century the *Speculum astronomie* says:⁸

Ex libris ergo qui post libros geometricos et arithmeticos invenitur apud nos scripti super his, primus tempore compositionis est liber quem edidit Nemroth gigas ad Iohathonem discipulum suum, qui sic incipit: *Sphera celi*, etc., in quo est parum proficui et falsitates nonnullae; sed nihil est ibi contra fidem, quod sciam.

Contrary to Cumont's opinion,⁹ the work of Nimrod the giant is, in its mediaeval form, still extant, in two manuscripts neither of which appears to have been examined in this connection. One, MS. Lat. VIII 22 of the library of St. Mark's at Venice,¹⁰ has the

⁶ *Chronographia* (ed. Bonn), p. 17: Περσῶν ἐπρώτευσε διδάξας αὐτοὺς ἀστρονομίαν καὶ ἀστρολογίαν, τῇ ὁρατῇ κινήσει τὰ περὶ τοῦ τυκτομῆκους πάντα δῆθεν σηματοῦντα. Augustine, *De civitate Dei*, 16, 4, 10, 11, knows Nimrod only as the founder of Babylon. So also Gregory of Tours, *Historia Francorum*, 1, 6; *De cursu stellarum*, c. 3 (ed. Arndt-Krusch, pp. 36, 858).

⁷ Steinschneider, "Zum Speculum astronomicum des Albertus Magnus," in *Z. M. Ph.*, xvi. 380 (1871); and *E. U.*, no. 175 c. The passage of William of Conches will be found under Honorius of Autun, in Migne, clxxii. 59.

⁸ *Alberti Magni Opera* (Paris, 1891), x. 629; critical edition of this passage in *Catalogus codicum astrologorum Graecorum*, v. 86; full commentary by Steinschneider, *loc. cit.* The *Speculum* has been generally attributed to Albertus Magnus; Mandonnet's argument for Roger Bacon in *Revue néo-scholastique*, xvii. 313-335 (1910), is discussed by Thorndike, ii, ch. 62.

⁹ *Catalogus codicum astrologorum*, v. 86, n.

¹⁰ Classis XI, Cod. 73; Valentinielli, *Bibliotheca manuscripta ad S. Marci Venetiarum*, iv. 255. The MS. is clearly of the thirteenth century, not as the catalogue says of the fifteenth. The treatise extends from f. 1 to the middle of f. 36, where it ends abruptly after the description of Anticanus. The text begins: 'Spera celi quater senis horis dum revolvitur omnes stelle fixe celo quem [sic] cum ea ambiunt circa axem breviores circulos efficiunt. Igitur que polo apparet vicinior inter omnes, tam ei splendor est precipuus, ipsa noctium hor[arum?] computatrix dicitur argumentum eminentium [sic] cardini oppositum. Recta linea si serves luminum intuitu horas noctis nosse potes galli sine vocibus.' Then after a figure of a man

incipit cited in the *Speculum astronomie*; the other, MS. Pal. Lat. 1417 of the Vatican,¹¹ has a different beginning, but agrees in the body of the treatise. The correspondence between the two is close throughout the first part of the work; in the latter part the Venetian MS. has a fuller treatment of the planets and constellations but lacks the meteorological chapters with which the other concludes. I do not find in either the fable of Taurus mentioned by William of Conches or the account of Leo for which Philip de Thaon cites Nebroz as his source in the only instance where he seems to be directly followed.¹² Evidently there are problems here which require further manuscript evidence.¹³

Both MSS. have, evidently as part of the original text, numerous figures, of which the most notable are the series of constellations in the Venetian codex. At the beginning of the treatise an interesting drawing, much better in the Vatican MS., represents side by side the two kings, Atlas and Nimrod, whom classical and oriental tradition respectively make the founders of astronomy. Atlas is depicted standing on the Pyrenees and bearing on his shoulders the firmament with its stars, while Nimrod stands on the mountain of the Amorites and looks upward while he supports in his hands the heavens without stars. The inscriptions read: *Athlas magnus astrologus rex Ispanensium vegens humeris suis celum inclinatum cum stellis. Nemroth inspector celorum ac rex*

observing the pole, 'Incipit liber de astronomia. De forma celi et quomodo decurrit inclinatum. Celum igitur inclinatum . . .'

¹¹ The treatise occupies the nineteen folios of the MS., which is written in a clear hand of the twelfth century, with the headings in red. It bears the title in a modern hand, "Ptolomei tractatus ad sciendum horas dierum ac noctis." The introductory matter was evidently lacking in the fifteenth century, when the contents of the volume were thus given at the bottom of f. 1: 'Libellus pulcher Besde de situ et dispositione stellarum et signorum celi; libellus seu tractatus Ptolomei regis ad sciendum horas diei et noctis; tractatus de distinctione climatum mundi et de terminis septem climatum.' On this MS., see now Saxl, in Heidelberg *Sitzungsberichte*, 1915, no. 5, pp. 30 f., plate 21.

¹² Lines 1315-46. Some of these lines reappear in the description of the lion in Philip's *Bestiaire*, ed. Walberg, lines 25 ff.

¹³ MS. Ashmole 191, f. 46, of the Bodleian contains only a brief extract from the "Liber responsionum magistri Nemroth ad discipulum Ioaton," beginning, 'Dico enim quod de oriente . . .'. An extract appears also in *Archiv für die Geschichte der Medizin*, x. 309 (1917).

Caldeorum vegens manibus celum inclinatum sine stellis. Probably a paragraph on the preceding page, now lost, of the Vatican MS. explained Nimrod, as a quotation from St. Augustine at the top of this page explains Atlas.¹⁴ The work proper then begins in both MSS.:

De forma¹⁵ celi et quomodo decurrit inclinatum

Celum igitur inclinatum volvitur a meridiano usque in septentrionem super terram et de septentrione ad meridianum sub terram et in rotunditatem suam volvens sese inclinatum et quasi¹⁶ eversum¹⁷ videtur, directum¹⁸ per preceptionem creatoris creature. Ut homo opifex bonus¹⁹ instruens palatium, qui primum mensurat locum et fodit fundamentum et edificat ordinabiliter illud donec adimpleatur²⁰ edificium suum, ita et Nemroth mensuravit omnem causam celi per suum intellectum et posuit fundamentum super quod edificavit ordinem numeri per capitula superior denominata et²¹ dum perlegisset eadem semper in melius construxit. Et omnia ista capitula se invicem condecorant ut bonus opifex qui edificium suum ordinanter disponit. Primo in edificio fit²² fundamentum in²³ terra et primo capitulo expositio minima celo verso sine stellis et post hec apparebit numerus.

ii. *De una virtute qua dicit Nemroth quia²⁴ sustinet celum*

Et dum recordaretur Nemroth formam celi cognovit quod habuisset creatorem non agnoscens^{24a} quis esset. Et vidit celum volvens in semetipsum²⁵ non exiens de loco suo et agnovit quod non habuisset²⁶ de subter²⁷ quod illud impedisset nec desuper per quod suspenderetur, et in hoc non potuit dicere aliud nisi quod²⁸ virtus sit que hoc sustinet. Et eam nominavit fortitudinem sustententem celum et stantem sub nullo, ut admiranda sit scientia Nemroth quod mensurasset formam celi et cognovit cursus²⁹ signorum et circulos stellarum et fundamentum terre et non agnovit quod Deus creasset ea. Sed et hoc³⁰ cognovit quod³¹ desuper creatura fortis et dominatrix est³¹ et nominavit eam creatorem, et depinxit et scripsit omnia secundum similitudinem suam, ita ut qui tunc fuerunt voluerunt illum habere ut deum propter suam virtutem et scientiam, dicente illo occulta in compoto astronomie. Et cognovit Nemroth quod³² celum fuisset purum et post hoc factus est sol et luna et omnes stelle celi.³³

¹⁴ *De civitate Dei*, 18, 39 (ed. Hoffmann, ii. 330).

¹⁵ Vat. *fortitudine*.

¹⁶ Ven. *quod*; Vat. om.

¹⁷ Vat. *reversum*.

¹⁸ Vat. *directum est per preceptum creatoris. Opifex*.

¹⁹ Ven. *bonum*.

²⁰ Vat. *adimpleat*.

²¹ Vat. omits *et . . . construxit*.

²² Vat. *sit*.

²³ Vat. om.

²⁴ Vat. *que*.

^{24a} Vat. *sed non cognovit*.

²⁵ Vat. *semetipso*.

²⁶ Vat. *erat*.

²⁷ Vat. *subtus*.

²⁸ Vat. *quia*.

²⁹ Ven. *cursum*.

³⁰ Ven. om.

³¹ Vat. *sit*.

³² Vat. omits *celi*.

Chapters follow *De .iiii^{or}. ventis*, *De duabus fortitudinibus*, *De .xii. fortitudinibus*, *De .vii. fortitudinibus*, varied by the insertion, without credit, of the chapters on earthquakes and Etna from Bede's *De naturis rerum*.³³ The more specifically astronomical part of the work then begins with a brief account of the *axis celi* and the zodiac, succeeded by chapters on the planets, the Pleiads, the sun and its eclipses, and the moon and its eclipses. In the midst of the account of the moon there is evidently a lacuna in the Vatican MS.³⁴ where the Venetian MS. takes up the several planets and their motions. Both then agree in the portions treating of the hours of the day, epacts, concurrents, and days of the week, after which they finally diverge. The Venetian codex devotes the remaining ten pages to a description of the constellations, to the number of forty-three, accompanied by drawings which should have interest for the student of mediaeval astronomy.³⁵ None of these are found in the Vatican MS., which proceeds to consider the nature of clouds, thunder, lightning, and the rainbow. Save for the quotations from Bede and the section on the constellations, both MSS. maintain throughout the form of a dialogue between Nimrod and Ioathon, who first appears in the fifth chapter. There is very little that could be called astrological, although the concluding chapter, found only in the Vatican MS., seems to presuppose such a treatment:

Quod interrogavit Ioathon magistrum suum et non dedit ei responsum

Et postquam exposuit Nemroth Ioathon discipulo suo quid sit arcus pacis vel unde est, interrogavit eum dicens, Magister, cognovi quod exposuisti mihi quid sit arcus pacis vel unde fit. Tunc prevenit eum infirmitas mortalis et dum vidisset Ioathon magistrum suum Nemroth quia moreretur, venit et cecidit ad pedes eius dicens, Magister, nimis tristis effectus sum quia dum habui patrem efficior orphanus et post divitias multas nunc veniet michi

³³ Cc. 49, 50 (Migne, xc. 275-278). C. 51, 'Divisio terre,' also appears on f. 8 of the Vatican MS.

³⁴ F. 12, where the heading, *De luna .i. usque in .xv. quot punctos luceat donec veniat in polestate noctis*, does not correspond to the text, which assumes a preceding discussion of the planets.

³⁵ This part of the text begins with the typical description (f. 31 v): 'Helix, Arctus malorum, habet autem in capite stellas obscuras vii., in spatula .i., super pectus .i., in pede .i., in dorso .i., in tibia interiore .ii., super cauda .iii., sunt omnes .xvi.' The treatment is quite different from that of Hyginus.

paupertas et post virtutem quam habui ero debilis. Respondit Nemroth dicens, Ioathon, fortasse non erit ita ut putas. Respondit Ioathon dicens, Magister utique ita erit. Numquid quod a te didici non est veritas? Et si verus est compotus quem ostendisti mihi pro infirmo, ipse significavit mihi mortem meam. Ait illi Nemroth, Ioathon, omnia que docui te vera sunt et compotus qui est super infirmum non erit tibi in aliquo error. Ego autem vadam ad patres meos et tu venies postea et ego ad te non revertar, quia ita hoc est quod nemo potest transgredi; et si habes aliquod ad interrogandum unde tibi cure sit interroga velociter antequam inebreetur anima de potu calicis mortis et antequam colligatur lingua et quietudine cursus sanguinis tollatur sensus per fortitudinem magni pavoris cum victus exieris de termino vite ad potestatem mortis. Respondit Ioathon dicens, Magister bone, de omnibus que ostendisti mihi aliquit cognovi, de vento autem aperte non exposuisti michi. . . . Usque huc interrogavit Ioathon Nemroth magistrum suum et non dedit illi responsum et dum interrogat de vento insufflavit in eum ventus mortis et non respondit ei ullum verbum et dimisit doctrinam suam aliis.

It is plain, merely from the extracts here given, that the author of the treatise does not speak in the name of Nimrod but bases his work upon a dialogue between Nimrod and Ioathon which he supplements and modifies. He refers to *alii doctores qui fuerunt post Nemroth*,³⁶ and in two passages cites a certain Alexander.³⁷ The Oriental touch is apparent, but there is no trace of Arabic terms or of the Arabic astronomy, so that the work is plainly anterior to the introduction of Saracen learning into Latin Europe. Words like *planeles* and *sinodus* and the passage (gloss?) on the Pleiads³⁸ show a certain amount of Greek influence,³⁹ but

³⁶ 'Et alii doctores qui fuerunt post Nemroth et Ioathon exposuerunt obscuritatem que apparet in luna. Nos autem modo exponimus subterius in loco oportuno.' Vat. MS., f. 6 v.

³⁷ Vat. MS., f. 2 v: 'Nam quod ipse dixit quia discurrunt inter signa disposuit Alexander dicens quia iste fortitudines quas ait ipse Nemroth ipse sunt quas exposuit superius.' F. 10 (= MS. Venice, f. 12 v): '*In quo signo currit luna ut exposuit Alexander.* Exposuimus superius in quo signo currat luna, nunc ostende mihi sicut Alexander exposuit qui mensuravit et coequavit numero astronomie.'

³⁸ MS. Vat., f. 10 v: 'Pliades vii stelle splendide que post vere exoriuntur vel Pliades a pluralitate dicte, quia pluralitatem latine grece *ᾠποπολειον* [*ἀπὸ πλείων*?] dicitur. Pliades sunt multi vage stelle quas etiam Botrum appellant. Pliades vii fuerunt quorum nomina sunt Terope, Meropios, Cileno, Maia, Altione, Tagete, Electra. Dicte autem pliades *apo tu plicios* [cf. Isidore, *Etymologiae*, 3, 70, 13: *ἀπὸ τοῦ πλείστον*], id est a pluralitate, sive a pluvia vel a mare, ut sint filie Athlantis et Pliadis.'

³⁹ The accounts of the constellations in the Venetian MS., though based upon the Greek catalogues, are not directly translated. E. g. (f. 33 v), 'equus qui et bellorum fons' [i. e., Bellerophon]; 'navis que apud Argivos Argo vocatur' (f. 35).

the style is not that of a direct translation, and the quotations from Augustine and Bede show that the matter was worked over in the West.

The dialogue bears clear traces of Syrian origin, for the disciple Ioathon or Ioanton⁴⁰ can be none other than the fourth son of Noah who appears as Ionton, Ionaton, Ionites, Ἰώνητος, Τίωνητος, Μονήτων, and Munt in Christian writers of the Middle Ages. Unknown to the Hebrew tradition, he is found in works of Syrian origin and in these only,⁴¹ and is there brought into direct relation to Nimrod. Thus in the *Cave of Treasure*, which in its Syrian form is probably of the sixth century, Ionton is visited by Nimrod in the land of Nod and teaches him that wisdom and learning of the stars which the Persians call the oracle and the Romans astronomy.⁴² Similar and apparently related is the account which appears toward the close of the seventh century in the *Apocalypse* of the Pseudo-Methodius,⁴³ where we read that Noah sent his son Ionitus to the east, to the land of the sea and the sunrise, where God granted him the gift of wisdom so that he became the discoverer of astronomy and the teacher of Nimrod. Their relations continued friendly, and Ionitus wrote a letter to Nimrod prophesying the destruction of the dominion of the sons of Ham.⁴⁴ The astronomical attainments of Ionithon are described in greater detail in a third and considerably later Syrian source, the so-called *Causa causarum*,⁴⁵ but it was through the Pseudo-Metho-

⁴⁰ The *Catalogus codicum astrologicorum*, v. 86, cannot identify him.

⁴¹ So Sackur, who has collected the material relating to him in his *Sibyllinische Texte und Forschungen* (Halle, 1898), pp. 15, 54, 64.

⁴² Bezold, *Die Schatzhöhle* (Leipzig, 1883-88), i. 33 f. and notes; Götze, "Die Schatzhöhle," in Heidelberg *Sitzungsberichte*, 1922, no. 4, pp. 57 f.

⁴³ A critical edition of the Greek text, with studies of Latin and Slavic versions, is given by Istrin, *Otkrovenie Methodiya Patarskogo* in the *Čteniya* of the Historical and Archaeological Society of the University of Moscow, 1897, parts 2 and 4. The Latin version is edited by Sackur, *Sibyllinische Texte*, pp. 59-96. Cf. Gervase of Tilbury, ed. Leibnitz, p. 899.

⁴⁴ Οὗτος δὲ ὁ Μονήτων (al. Ἰώνητος, Τίωνητος) ἔλαβε παρὰ τοῦ θεοῦ χάρισμα σοφίας, ὥστε πρῶτος ἀστρονομίας τέχνην ἐφεύρε. Πρὸς τοῦτον κατήλθε Νεβρώδ καὶ παιδεύθει παρ' αὐτοῦ ἐλήφε βουλὴν ἐφ' ᾧ βασιλεῦσαι αὐτόν. Istrin, text, p. 9 f.; cf. pp. 52, 77, and Sackur, pp. 63 f.

⁴⁵ Kayser, *Das Buch von der Erkenntniss der Wahrheit* (Strasbourg, 1893), pp. 259 f.

dius that he passed into the West and found mention in a number of chroniclers and other writers of the Middle Ages.⁴⁶ In all these sources Ionitus is the master and Nimrod the pupil, but the reversal of the relation might easily arise under the influence of the tradition which we find in Malalas and others that Nimrod was the founder of astronomy.

As regards the date of Nimrod and Ioathon our text stands in general agreement with the chronology of the Pseudo-Methodius, who mentions Ionites in A.M. 2799 and Nimrod in 3008:

Et ab initio seculi usque ad tempus Nemroth fortissimi et Ioanton discipuli sui in quo anno circumvixit Mercurius per omnia signa circulum .i., qui sunt .xxii. circuli et anni .iii. clxxxiii. et ab ipso anno usque ad finem mundi currit.⁴⁷

This is the only indication on this point, and unfortunately the similar cycles given for each planet⁴⁸ throw no light on the date of the treatise itself, the years being in each case carried out to the close of the cycle next preceding A.M. 7000, doubtless on the theory which we find in the Pseudo-Methodius, that the end of the world will coincide with the close of the seventh millenary period. The same theory appears in the table of solar eclipses,⁴⁹ which is carried to the year 6995:

Si vis scire in quo anno fit eclipsis, sume annos ab origine mundi, scito quot sunt, et subtrahe ex ipsis vi cc xc viiii, et quot remanent divide eos per decem et novem, et sicut scriptum est in rota ita invenies eclipsis solis in tempore ipsius.

There follows a table, but no *rota*, beginning, *In vi anno non erit eclipsis, in xxxiii anno erit eclipsis*, and so on at intervals of twenty-four years to *in dcxcvi anno erit eclipsis*. Here, however, the year 6299 is evidently chosen because it is the date of writing

⁴⁶ To the passages collected by Sackur, p. 64, should be added the *Summa philosophiae* of Grosseteste, in Baur, *Die philosophischen Werke des Robert Grosseteste* (*Beiträge*, ix), p. 275; and the Slavic material collected by Istrin and by Veselovsky in his *Razyskaniya* (St. Petersburg, 1880-91), no. x.

⁴⁷ MS. *d'rt*, apparently corrupted from *c'rit*, which appears constantly in this part of the text.

⁴⁸ MS. Venice, ff. 17-19 v. Mars is carried to the year 6990, Mercury to 6936, Jupiter to 6912, Venus to 6922, and Saturn to 6800. The text of the numbers is quite corrupt.

⁴⁹ MS. Vat., f. 9; MS. Venice, f. 11 v.

or at least of the beginning of the current nineteen-year period, which would bring the treatise between A.D. 791 and 810 according to the Byzantine era or between 807 and 826 according to the era of Antioch. With the ninth century the style and manner of treatment in general correspond. The home of the work should probably be sought in Gaul, where throughout the early Middle Ages relations were maintained with Syria⁵⁰ which have left literary monuments in the Latin version of the Pseudo-Methodius and in the translation of the legend of the Seven Sleepers by Gregory of Tours.

The various astronomical questions involved in Nimrod's treatise I cannot pretend to discuss, still less can I enter into the problem of its sources and its affinities with other works. My purpose has been merely to bring to light an unused source for the study of Byzantine and Syrian astronomy and for the astronomical and cosmological ideas current in western Europe in the early Middle Ages.

⁵⁰ See particularly Scheffer-Boichorst, "Zur Geschichte der Syrer im Abendlande," in *Mitteilungen des Instituts für österreichische Geschichtsforschung*, vi. 535 ff. (1885); L. Bréhier, "Les colonies d'Orientaux en Occident au commencement du moyen-âge," in *B. Z.*, xii. 1-39 (1903).

CHAPTER XVII

SOME EARLY TREATISES ON FALCONRY¹

WORKS on falconry occupy a not inconsiderable place in the literature of the later Middle Ages, whether in Latin or in the various vernaculars. Interesting as a phase of the court life and manners of the period, these are also significant in the history of mediaeval science, not only as illustrating the current medical notions, but also as marking the growth of knowledge based upon detailed personal observation. For the most part these treatises consist of collections of remedies for diseases, in which traditional lore, superstition, and practical experience are curiously mingled. Many of them describe with some fulness various species of birds of prey and their uses, and in the later period the actual practice of falconry receives minute attention. There is much translation and much borrowing back and forth, and the interrelations of the several works constitute an exceedingly intricate subject. As no survey of this literature has been attempted since the study of Werth in 1888,² it may not be out of place to call attention to certain unknown or little known manuals, chiefly of the twelfth and thirteenth centuries, which have come to my notice in the course of a study of the most famous of such treatises, the *De arte venandi cum avibus* of the Emperor Frederick II.³

1. ADELARD OF BATH

The earliest treatise on hawking so far identified in western Europe was written in England in the time of Henry I. Its author, Adelard of Bath, was not only attached in some fashion to

¹ Reprinted from the *Romanic Review*, xiii. 18-27 (1922).

² H. Werth, "Altfranzösische Jagdlehrbücher, nebst Handschriftenbibliographie der abendländischen Jagdlitteratur überhaupt," in *Zeitschrift für romanische Philologie*, xii. 146-191, 381-415; xiii. 1-34 (1888-89). Cf. Biedermann's supplementary notes, *ibid.*, xxi. 529-540; and J. E. Harting, *Bibliotheca accipitraria* (London, 1891).

³ See Chapter XIV.

the English court, but had studied in France, southern Italy, and the Mohammedan East, and was one of the pioneers in introducing Arabic learning into western Europe. Yet his little work on falconry ignores eastern experience and concerns itself chiefly with old English recipes for the diseases of hawks. Moreover, it refers specifically to earlier writings on the subject, the *libri Haroldi regis*, probably books once in the possession of the last Anglo-Saxon king.⁴ The beginning of Adelard's treatise indicates that it was an interlude in the more serious studies represented by the author's *Questiones naturales*, also in the form of a dialogue with his nephew. The nephew begins: ⁵

Quoniam in causis disserendis rerum animus noster admodum fatigatus ⁶ est, ad eiusdem relevationem id magis delectabile quam grave interponendum est. Intellectus enim similiter ut arcus si nunquam cessas tendere mollis erit. Quare in eo iudicio tale ad quod et iocundum et utile sit eligendum est. Id autem recte fieri spero si de accipitrum natura et usu ⁷ elegantius aperias, precipue cum et nos Angli sumus genere et eorum inde scientia pre ceteris gentibus probata sit et ea deinde scientie qualitas constat ⁸ ut ⁹ quanto pluribus dividitur tanto magis efflorescet. *Adel[ardus]*. Sit sane ne aut inscientia aut invidia ¹⁰ arguamus. Ea igitur disseremus que et moderatorum magistrorum usu didicimus et non minus que Haraoldi ¹¹ regis libris reperimus scripta, ut quicumque his intentus disputatione[m] habeat si negotium exercuit paratus ¹² esse possit. Tuum itaque sit inquirere, meum explicare.

It ends:

Hec habui que de cura accipitrum dicerem. Ceterum si tibi vel alicui alii suam addere sententi[am] placet, non invideo.

Adelard's little work does not seem to have been widely used. The only complete copy I have found is in MS. 2504 of the Nationalbibliothek at Vienna (ff. 49-51). The greater part is incorporated into a compilation of the thirteenth century to which we shall come below (Clare College, Cambridge, MS. 15, ff. 185-187). The earlier portion at least is used by the author of an

⁴ See my note on "King Harold's Books," in *E. H. R.*, xxxvii. 398-400 (1922); and for Adelard, *supra*, Chapter II.

⁶ Vienna, MS. 2504, f. 49 (ca. 1200).

⁸ MS. *fatigatius*.

⁷ Corrected from *usque ad*.

¹¹ The scribe may have tried to correct the *a* into an *o* or vice versa.

¹² MS. *parius*.

⁵ MS. *et stat*.

⁹ MS. *et* (?).

¹⁰ MS. *individua*.

Anglo-Norman poem in the British Museum (Harleian MS. 978).¹³

No other treatise connected with the Anglo-Norman court is known to have survived. Daude de Pradas, writing his *Romans dels auzels cassadors* early in the thirteenth century,¹⁴ cites:

En un libre del rei Enric
d'Anclaterra lo pros el ric,
que amet plus ausels e cas
que non fes anc nuill crestias,
trobei d'azautz esperimens
on no coue far argumens.¹⁵

Whether the reference is to Henry I or Henry II it is impossible to say, though the latter is more likely. This would be a particularly interesting treatise to recover.

2. WILLIAM THE FALCONER

Like the Norman kings of England, the Norman rulers of Sicily were mighty hunters and hawkers, and the first who bore the royal title, Roger II (1130-54), is said to have had a falconer, William, whose precepts are frequently cited. Thus Albertus Magnus, in the chapters of his *De animalibus* devoted to falcons,¹⁶ cites in three passages William the falconer, in one instance specifically as King Roger's falconer, followed as an authority by Frederick II:¹⁷

¹³ Compare the extract given by Paul Meyer in *Romania*, xv. 278 f., with the passage from Adelard printed below, note 36.

¹⁴ The biographical data on Daude given in the standard works are very meagre. He dedicates his poem on the cardinal virtues to Stephen, bishop of Le Puy (1220-31); and Torraca has found him attesting as canon of Rodez in 1214-18: *Studi su la lirica italiana del duecento* (Bologna, 1902), pp. 244 f.

¹⁵ Ed. Monaci (in *Studi di filologia romanza*, v. 65-192), lines 1930-35; ed. Sachs (Brandenburg, 1865), lines 1905-10. Werth (xii. 154 f., 166-171) thinks he can identify other passages in Daude derived from the *libre del rei Enric*. The incantations of lines 1937 ff. reappear in Albertus Magnus, c. 19.

¹⁶ Bk. xxiii, c. 40. Ed. Stadler (*Beiträge*, xvi), pp. 1453-93; *Opera* (Paris, 1891), xii. 451-487. These chapters often appear in the manuscripts as a separate work on falconry, e. g., Bodleian, MS. Rawlinson D. 483, ff. 1-47 v, from Bologna.

¹⁷ C. 10, ed. Stadler, p. 1465; not in the known text of Frederick's *De arte*. Cf. c. 20 below.

Hunc falconem [i. e., nigrum] Federicus imperator sequens dicta Guilelmi, regis Rogerii falconarii, dixit primum visum esse in montanis quarti climatis quae Gelboe vocantur, et deinde iuvenes expulsos a parentibus venisse in Salaminae Asiae montana, et iterum expulsos nepotes primorum devenisse ad Siciliae montana et sic derivata esse per Ytaliā.

These citations can be identified in a brief treatise which in several manuscripts¹⁸ follows the Latin text of the so-called 'Dancus.'¹⁹ The last chapter of 'Dancus' runs:

Iste magister non fuit mendax sed verax, iste medicine sunt bone et perfecte et multum probate. Guilielmus falconerius qui fuit nutritus in curia regis Rogerii qui postea multum moratus fuit cum filio suo et habuit quendam magistrum qui vocatus fuit Martinus qui fuit sapiens et doctus in arte falconum, et iste discipulus suus Guilielmus scivit omnia que ipse scivit et tanto plus quod ipse composuit libellum unum de arte ista cuius principium tale est. Nolite dubitare sed firmiter sciatis quod nullus talis magister vivit modo in mundo.

Explicit liber Galacianus rex [sic] de avibus.

[Chapter headings, then] Incipit tractatus Guilelmi de avibus et eorum medicamine, et primo capitulo incipit de dolore capitis qui dicitur furtinum [or siurtinum].

Quando vides quod habet furtinum accipe mumiam et da ei comedere cum carne porcina et alio die da ei carnem gatti et tene eum donec liberabitur. . .

Seventeen chapters contain brief remedies of this sort; the remaining chapters, 18-24, treat briefly of the training and species of falcons. In the midst of chapter 20 we read:

Nullus magister scit ita de naturis falconum unde sunt et unde exierunt sicut iste magister Guillelmus filius Malgerii Neapolitani scivit et ideo tractat de naturis falconum quia plus scivit quam aliquis homo. Falcones qui prius apparuerunt in mundo ipse bene agnovit. Falcones nigri prius apparuerunt.

¹⁸ I have used in the Vatican MSS. Vat. lat. 5366, ff. 40 v-44 v (saec. xiii); Ott. lat. 1811, ff. 37-40 (saec. xiv); Reg. lat. 1227, ff. 51-56 (saec. xv); Reg. lat. 1446, ff. 74-76 (saec. xiv); and in the Bibliothèque Nationale, MS. 7020, ff. 45 v-49 (saec. xv). The text of the extracts printed follows MS. Vat. lat. 5366, with some obvious corrections from the others. See also the French version of Dancus, anterior to 1284, ed. Martin-Dairvault (Paris, 1883), pp. 19-29, and its notes; and the Italian version in *Il propugnatore*, II, part 2, pp. 221 ff. (1869). An Italian version of William, now in MS. Ashburnham 1249 of the Laurentian, is cited by G. Mazzatinti, *La biblioteca dei Re d'Aragona* (Rocca S. Casciano, 1897), p. 172.

¹⁹ On which see Werth, xii. 148-160. There is a series of extracts from Dancus and others at the University of Bologna, MS. 1462 (2764), saec. xiv.; and a copy of the Latin Dancus at Modena, Estense MS. 15, followed by an anonymous *Liber curarum avium*, beginning, 'Notandum est quod meliores aves viventes de rapina . . .'

Venerunt a Babilonia in Montem Gebeel et deinde venerunt in Sclavoniam et deinde venerunt ad Palunudum ²⁰ quod est in pertinentiis Policastri.

Magister Guillelmus is again quoted in chapter 22:

Propter carnem non perdet voluntatem venandi set propter sanguinem tantum, et hoc probavit magister Guillelmus qui plus modo fecit quam aliquis qui vivat.

The treatise ends with the chapter on *ysmerli* cited from William by Albertus Magnus: ²¹

Sed tamen si bonus est magister potest eos facere capere grues tali dieta et tali custodia ut alii falcones, et si vult capere grues oportet habere duodecim ysmerlos.

Apparently we have not William's manual in its original form, but extracts from it, which, however, have something of the brevity to be expected from a practical falconer of the early period. The connection with Sicily is clear, not only in the statements respecting the king and the Neapolitan falconer Malgerio, but, more certainly, in the reference to the region of Policastro. If the treatise in its original form should be discovered, we should probably have one of the important sources for later writers.

3. THE COURT OF FREDERICK II AND HIS SONS

In the thirteenth century the chief centre of literary activity on subjects of falconry was the court of the Emperor Frederick II. A tireless sportsman from his youth, the emperor called in expert falconers from many lands and devoted long years to the observation of birds and the practice of the art. He had the treatise of Moamyn, and probably that of Yatrib, translated from the Arabic under his personal supervision, and appears in general to have systematically collected the authorities on the subject. After thirty years of preparation he dedicated to his son Manfred the *De arte venandi cum avibus*, which is the most noteworthy mediaeval work on the subject, noteworthy for its independent and scientific spirit even more than for the eminence of its author. In the form known to us the *De arte* consists of a systematic account

²⁰ Lat. 7020 has 'Palumbidum'; Reg. lat. 1446 interlines in a later hand 'Paludinum.' The place is evidently Monte Palladino on the gulf of Policastro.

²¹ Ed. Stadler, p. 1468.

of birds in general and falcons in particular, followed by a detailed examination of lures and the methods of hunting with the several types of falcons. There is reason for thinking that the emperor also discussed hawks and the diseases of falcons, but this part of his work has not been recovered.²² Besides half a dozen manuscripts of the Latin original, in a six-book edition and a two-book recension by Manfred, we have two different French versions made before the end of the thirteenth century.²³

Frederick's favorite son Manfred inherited in large measure the intellectual interests of his father. We learn from the preface that Frederick's *De arte* was finally put into form at Manfred's request, and it was he who later searched out the notes and loose sheets of the author which are incorporated in his recension.²⁴

Another son, Enzo, well known in the literary circle of the *Magna Curia*, was likewise a patron of writers on falconry. His "servenz et hom de lige," Daniel of Cremona, dedicates to him French versions of Moamyn and Yatrib which afford interesting evidence of the prevalence of French in North Italy;²⁵ while an anonymous young writer composed for him, as king of Torres and Gallura, a brief set of excerpts on the species of falcons and their diseases, which is preserved at Clare College, Cambridge (MS. 15, ff. 185-187). It begins:

Incipit practica avium. Ex primis legum cunabilis impericie mee solacium querens scemam virorum honestatisque sigillum mente ne facto viri deinceps

²² See the chapters on diseases in Albertus Magnus 'secundum falconarios Federici imperatoris' (c. 19) and 'secundum experta Federici' (c. 20). The greater part of chapter 19 appears in a treatise in the Vatican (MS. Reg. lat. 1446, ff. 76-77) headed 'Gerardus falconarius,' possibly one of the emperor's falconers.

²³ Supra, Chapter XIV.

²⁴ Supra, Chapters XII, XIV. The treatise of Adam des Esgles, "falconer of the prince of Tarento," dates doubtless not from Manfred's time but from one of the later bearers of this title. It is found in a manuscript of the fifteenth century at Le Mans, MS. 79, ff. 116 v-128 v, beginning:

'Aultres medicines pour faulcons fait par Adam des Esgles chevalier faulconnier du prince de Tarente, et premierement faulconnerie veult que soyes doulx et courtoys et debonnaire. Se ung faulcon aver qui soit blanc et blont et de gros plumage . . .'

²⁵ Ciampoli, *I codici francesi della R. Biblioteca di S. Marco* (Venice, 1897), pp. 112-114; cf. Paul Meyer, in *Année de la Roman Congress of History*, iv. 78 (1904); supra, Chapter XIV, nn. 128-130.

videtur contrarius set honeste pretendi pocius condescendens, igitur ut principi nostro excellentissimo, .E. Turrensi principi, qui causa aucupantium delectat precipue ceterisque eiusdem generis * satisfactioni[bus], utiliora ex libris antiquorum collecta in huius libelli compendium de natura avium breviter enodavi, opus hoc meum esse non affirmans nisi per compilationem. Eius seriem in .v. particulas divisi quarum prima continetur qualiter Aquila et Simachus et Theodosion Tholomeo imperatori Egipti scripserunt et quid de avibus senserunt et eorum accidentibus, variis enim subiacent periculis ut corpus humanum et variis succurritur medicinis. Et nota quod unus pro omnibus rationari intelligitur. Secunda continet quid * Alexander grecus medicus Cosme de vario casu ancipitrum et eorum medela ** scripsit. Tercia quid Girosius ** hispanus Theodosio imperatori. Quarta quid Alardus anglicus nepoti suo interroganti responderit. Quinta quid M. G. de Monte P. expertus sit, et sic liber terminatur.

The nature of the work is indicated by this preface: the species of hawks and falcons, and their diseases. Of our author's sources, the letters of Ptolemy and Theodosius are well known,³⁰ and Adelaar's treatise has just been described. The supposed letter of the Greek physician Alexander, I have not identified.³¹ Master G. of Montpellier may be Gilbert the Englishman, chancellor of Montpellier, well known as a medical writer about 1250;³² his contribution deals entirely with diseases.

4. ARCHIBERNARDUS

Among the Rossi manuscripts recently returned from Vienna to Rome and now on deposit in the Vatican ³³ there is found a codex of the thirteenth century containing a Latin poem of 324 hexameter lines entitled *Liber falconum*.³⁴ The author, who calls himself Archibernardus, is evidently an Italian, using such expressions as *pulzinus*, *buzza*, *pollastra*, and twice having the line,

Ars mea sanari docet hunc Italis medicari.

²⁶ MS. *genera*.

²⁹ As later. MS. here *Gñosius*.

²⁷ MS. *grecus*.

³⁰ Werth, xii. 160-165.

²⁸ MS. *ex medelo*.

³¹ Alexander is cited by Daude de Pradas, line 2319; cf. Werth, xii. 165.

³² *Histoire littéraire*, xxi. 393-403; cf. Duhem, iii. 291; Thorndike, ii, ch. 57. There is an early copy of his *Liber morborum* at the University of Madrid, MS. 120, f. 20.

³³ On this collection see Bethmann, in Pertz's *Archiv*, xii. 409-415; [Silva-Tarouca], in *Civiltà cattolica*, 18 February 1922, pp. 320-335; *Neues Archiv*, xlv. 102.

³⁴ MS. VII. 58, ff. 85-87 v.

The subject matter is of the usual kind, the species, food, and diseases of falcons:

A nostra prohemaria ductris sit virgo Maria!
 Archibernardi per carmen disce mederi
 Leso falconi nec dedignere doceri
 Miles mille valens si vis urbanus haberi.

.

Sit hic locus mete musarum avete cetus
 Egregios iuvenes equites peditesque docetis.
 Explicit liber falconum.

5. EGIDIO DI AQUINO

Friar Egidius de Aquino is given as the author of a brief treatise preserved in a manuscript of the fifteenth century in Corpus Christi College, Oxford (MS. 287, ff. 74 v–78 v). It covers the training, diseases, and species of birds of prey, beginning with falcons and ending with hawks, and is particularly full in distinguishing the varieties used in Italy. Thus the species of hawks include those of Ventimiglia, Slavonia, Calabria (*calavresi*), Istria, Sardinia, Germany, and the Alps (*alpisiani*);³⁵ while among *astures* we find those of Tuscany, Lombardy, the March, Apulia, Germany, and Sicily:

Incipit liber avium viventium de rapina et [de] morbis et curis et generationibus eorum.

Quoniam vidimus et experimento cognovimus morbos doctrinas naturas et generationes avium et plures de nobilioribus, scilicet viventibus de rapina et eorum generationibus documentis infirmitatibus curis et naturis, omnibus aliis generationibus pretermisiss ad presens tractatulum intendimus inchoare. . . . Quoniam inhonestum est retinere ancipitrem in manu cum pennis fractis sive tortis.

Explicit liber de naturis morbis et generationibus omnium avium viventium de rapina. Compositus est a fratre Egidio de Aquino.

Laus tibi sit, Christe, quoniam liber explicit iste.
 Et facto fine pia laudetur virgo Maria.
 Amen.

³⁵ The manual of Egidio is followed quite closely in the anonymous Italian treatise published by A. Mortara, *Scritture antiche toscane di falconeria* (Prato, 1851), pp. 1–21. Chapter 6 of this appears as a fragment in MS. Rawlinson D, 483, ff. 47 v–48 v, following the Latin text of Albertus Magnus.

This is followed in the manuscript (ff. 78 v-84) by an anonymous *Liber de ancipitribus et falconibus et curis eorum*, beginning:

Nimis sumit precipue volucres sparvarius et pre cunctis passeris . . .

It makes use of personal experience, but at the end incorporates a condensed version of William the falconer.

6. PETRUS FALCONERIUS

Of uncertain date is the brief Italian tract of a certain Peter on the care of falcons, preserved in a manuscript of the fifteenth century in the Vatican (MS. Urb. lat. 1014, ff. 53 v-56), in the midst of a copy of Moamyn:

Petrus falconerius aliter dictus Petrus de la stôr composuit ista. Qui fuit et est si vivit de melioribus falconeriis totius mundi et magister magistrorum imprimis.

Chi vol fare uno falcone ramage saur sitost come preso e vol mangiare su lopugno hoiuli [sic] de dar mangiare .viii. grani gorge entre lagente apresso si de hom quattro giorni carne lassativa lavata e apresso ledevo lomo dar uno membro de gallina. . . . e poi lo mecti su la pertica e lassalo stare che non de multo gettara lapiumata e quello sella se non la gettara quello pure. Allo sparvieri smeriglio daneli promicta.

7. ANONYMOUS WORKS

The care and cure of falcons is the subject of an anonymous treatise of the late thirteenth century preserved in a manuscript in the library of the University of Cambridge. At the beginning there is a suggestion of the earlier portion of Adelard of Bath,³⁶ while the remedies often coincide with those of the falconer of Frederick II quoted by Albertus Magnus. The beginning of the treatise has been printed by Paul Meyer;³⁷ it ends:

Aneti et piperis grana sex insimul tere et cum pullina carne sibi tribue.

³⁶ Adelard has: 'Inde audire desidero quales esse velis qui huic studio conveniant. Sobrios, patientes, castos, bene hanhelantes, necessitatibus expeditos. Quare? Ebrietas enim oblivionis mater est. Ira lesiones generat. Meretricum frequentatio tineosos ex tactu accipitris facit.' MS. Vienna 2504, f. 49; MS. Clare 15, f. 186.

³⁷ MS. Ff. vi. 13, ff. 69 v-73; *Romania*, xv. 279 (1886).

Two French treatises, likewise anterior to 1300, have been noted by Paul Meyer in the same manuscript.³⁸

Another French treatise of the same period is noted by Meyer in a manuscript at Lyons; as a different French version is found at Cheltenham, it is likely that both go back to a Latin original.³⁹

³⁸ *Ibid.*, pp. 279-281.

³⁹ *Romania*, xiii. 506 (1884); *Bulletin de la Société des anciens textes français*, xi 75-77 (1885). Not in Werth.

CHAPTER XVIII

A LIST OF TEXT-BOOKS FROM THE CLOSE OF THE TWELFTH CENTURY¹

To the historian of the influence of classical antiquity upon the civilization of the Middle Ages the study of mediaeval text-books yields information of the first importance. It was almost wholly as formulated in a few standard texts that the learning of the ancient world was transmitted to mediaeval times, and the authority of these manuals was so great that a list of those in use in any period affords an accurate index of the extent of its knowledge and the nature of its instruction. For the later Middle Ages the names of the text-books in use are known to us chiefly from the statutes prescribing the course of study in the several faculties of the various universities, but, unfortunately, the documents of this sort which have reached us do not belong to the earlier period of university history. If we except the brief list of books in logic, grammar, and rhetoric drawn up by the papal legate in 1215,² our earliest information respecting the arts course at the University of Paris comes from 1255³ and at Oxford from 1267;⁴ the first medical statutes, those of Paris, Naples, and Salerno, belong to the decade following 1270;⁵ while the oldest extant statutes of Bologna⁶ and Montpellier⁷ date from the fourteenth century. By this time, however, important changes had taken place in the subject-matter of both liberal and profes-

¹ Revised from *Harvard Studies in Classical Philology*, xx, 75-94 (1909). For the results cf. Baeumker, in *Philosophisches Jahrbuch*, xxvii, 478-487 (1914); Grabmann, *Aristotelesübersetzungen*, pp. 22-24; L. J. Paetow, *The Arts Course at Mediaeval Universities* (Urbana, 1910), pp. 15 f.

² Denifle and Chatelain, *Chartularium Universitatis Parisiensis*, i, 78.

³ *Ibid.*, i, 277. There is a compendious account of the principal text-books in arts in Paul Abelson, *The Seven Liberal Arts* (Columbia thesis, New York, 1906).

⁴ *Munimenta academica*, pp. 34-36.

⁵ *Chart. Univ. Par.*, i, 517; de Renzi, *Collectio Salernitana* (Naples, 1852), i, 361.

⁶ Malagola, *Statuti delle università e dei collegi dello studio bolognese*, pp. 3-44.

⁷ Germain, *Cartulaire de l'Université de Montpellier*, i, nos. 25, 65, 68, 75.

sional study. The decline of the classics before the triumph of the scholastic logic, the diffusion of the Aristotelian metaphysics and natural philosophy, the introduction of new texts in grammar and mathematics, the rise of Arabian medicine — these are some of the changes which made the curriculum of the fourteenth century a very different thing from that of the twelfth. Special interest, accordingly, attaches to an anonymous list of text-books in arts and in the various professional studies which was composed toward the end of the twelfth century and is for the first time printed below. The list, it is true, contains no mention of university organization, still less of any particular institution, but the arrangement of books in order under the seven liberal arts and the professional studies of medicine, civil and canon law, and theology, presupposes something like the university organization of the four faculties; and as reason will be shown for ascribing the list to Alexander Neckam, who studied and taught at Paris in the last quarter of the twelfth century, we may fairly regard it as an unofficial enumeration of the books then in use in the schools of Paris. The importance of Paris as an intellectual centre and of this period as an age of transition gives this text a certain significance in the history of mediaeval education.

The list in question forms part of a descriptive vocabulary of terms relating to ecclesiastical matters, court life, and learning, which is preserved in a manuscript in the library of Gonville and Caius College, Cambridge.⁸ This portion of the volume was written in England by an unlearned copyist in the latter half of the thirteenth century, and is accompanied by an elaborate gloss which is quite full but has an almost exclusively lexicographical interest. As the vocabulary has no title or indication of authorship, we shall cite it by the opening words, *Sacerdos ad altare*

⁸ MS. 385 (605), pp. 7-61, for the repeated use of which I am greatly indebted to the Master and Fellows of the college. The vocabulary is preceded by a brief table of contents, as follows: 'De vestimentis sacerdotalibus. De ornamentis altaris. De officiis cenobii. De ornatu regio. De tyrannorum exercitiis. De oblectamentis curialium. De erudicione scolarium. De notario. De gramatica. De logica. De arismetria et musica. De geometria. De astronomia. De phisica. De iure ecclesiastico. De iure civili. De celesti pagina. De librario.' The rubric 'De notario' is here misplaced; in the text it comes after 'De celesti pagina.'

accessurus. Most of the other tracts in the volume are from the pen of John of Garland, and as this vocabulary is likewise ascribed to him in the table of contents inserted at the beginning of the volume,⁹ it has been treated as one of Garland's works by all who have had occasion to mention it.¹⁰ This table of contents, however, was written in the fifteenth century by the donor of the manuscript, Roger Marchall, and as its statements cannot be shown to rest on anything better than Marchall's own opinion, we are obliged, in default of any contemporary authority, to treat the matter of authorship as an open question to be determined, if possible, by internal evidence.

Even a cursory examination proves fatal to the hypothesis that Garland was the author. The simple and direct style is in striking contrast with the overloaded pedantry of Garland's writings,¹¹ as seen, for example, in the well known *Dictionarius*¹² which he prepared for the students of Paris, or in the unpublished *Commentarius curialium*¹³ designed for the instruction of courtiers; nor does the subject-matter show parallels to these or to his other

⁹ 'Diccionarius M^{ri} Iohannis de Garlandia cum commento.' In his description of the MS. James inserts 'Dictionarius Joh. de Garlandia' as if this occurred on p. 7 of the text, but there is nothing of the sort in the MS.

¹⁰ Bernard, *Catalogi librorum MSS. Angliae et Hiberniae* (Oxford, 1697), no. 1045 of the Cambridge MSS.; Tanner, *Bibliotheca Britannico-Hibernica* (London, 1748), p. 310; Way, *Promptorium parvulorum* (Camden Society), iii, pp. xxviii, note, xxx; Smith, *Catalogue of MSS. in the Library of Gonville and Caius College*, p. 179; *Dictionary of National Biography*, under "Garland," no. 13; Sandys, *History of Classical Scholarship*², i. 550; Abelson, *The Seven Liberal Arts*, p. 28; James, *Descriptive Catalogue*, ii. 441.

¹¹ On Garland's writings see Hauréau, *Notices sur les oeuvres authentiques ou supposées de Jean de Garlande*, in the *Notices et extraits des MSS.*, xxvii, 2, pp. 1-86 (1877); the article in the *Dictionary of National Biography*; E. Habel, in *Mitteilungen der Gesellschaft für deutsche Erziehungsgeschichte*, xix. 1-34, 119-130 (1909); and E. Faral, *Les arts poétiques du XII^e et du XIII^e siècle* (Paris, 1923), pp. 40-46. None of these mentions the grammatical exercises at Basel, MS. B. viii. 4, ff. 47-76. Cf. also Paetow, *The Arts Course*, pp. 16-18, 40-44.

¹² Edited by Géraud, *Paris sous Philippe-le-Bel*, pp. 585-612; T. Wright, *A Volume of Vocabularies* (London, 1857), pp. 120-138; Scheler, in the *Jahrbuch für englische und romanische Literatur*, vi. Cf. the 'Dictionarius versificatus' at Douai, MS. 438.

¹³ Caius College, MS. 385, pp. 199-211; Bruges, MS. 546, ff. 77-83 v; Rome, Biblioteca Casanatense, MS. 2052, ff. 64-72 (also dated 1246). For specimens see Scheler, *o. c.*, vi. 52; Way, *Promptorium parvulorum*, iii, p. xxix.

works. Moreover, we shall shortly see reasons for assigning the *Sacerdos ad altare* to the close of the twelfth century, while Garland's earliest datable work, the *Dictionarius*, is subsequent to 1218¹⁴, his *De triumphis ecclesie* was written as late as 1252, and his *Exempla honeste vite* after 1257.¹⁵ Garland and the author of our vocabulary were plainly a full generation apart.¹⁶

There is, on the other hand, enough resemblance of style and matter to suggest some connection between the author of the *Sacerdos ad altare* and an older lexicographer of considerable repute, Alexander Neckam. Neckam was born at St. Albans in 1157,¹⁷ taught for some years at Dunstable in the time of Warin, abbot of St. Albans¹⁸ (1183-95), and later became a canon of

¹⁴ It contains a reference to the siege of Toulouse in this year and was written after the close of the Albigensian war ('sedato tumultu belli'): ed. Scheler, *Jahrbuch*, vi. 153; Hauréau, *Notice*, pp. 45-46.

¹⁵ *Joannis de Garlandia De triumphis ecclesie libri octo*, ed. Wright (London, Roxburgh Club, 1856), pp. ix, 139, where there is a reference to the crusade projected by Ferdinand III for 1252; E. Habel, "Die *Exempla honeste vite*," in *Romanische Forschungen*, xxix. 131-154 (1910). The *Poetria* (ed. Mari, *I trattati medievali di ritmica latina*, Milan, 1899, pp. 35-80; and *Romanische Forschungen*, xiii. 883-965) is assigned to ca. 1260 by Hauréau, *Notice*, p. 82. Cf. Mari, *I trattati*, p. 7; and Rockinger, in *Quellen und Erörterungen zur bayerischen und deutschen Geschichte*, ix. 489.

¹⁶ It is usually stated by the biographers of John of Garland that he studied at Paris under Alain de Lille, who died in 1202, but the passage in the *De triumphis ecclesie* (p. 74) which is cited in support of this view affords no evidence that John was Alain's pupil. As Alain entered the Cistercian order some time before his death (Hauréau, in *Mémoires de l'Académie des Inscriptions*, xxxii, 1, p. 27), it is exceedingly unlikely that he was the master of a man who was writing in 1257 or later. In his introduction to the *De triumphis* (p. vi) Wright argues that John was at the University of Paris as early as 1204, but he reaches this conclusion by translating *quater* "four" in a line of the *De mysteriis ecclesie* which will not scan as he prints it (*delegat* instead of *decem ligat* in the following line). In the text given by Otto, *Commentarii critici in codices bibliothecae Academicæ Gissensis* (Giessen, 1842), p. 147, line 644, this line reads:

Mille ducentenis quater inde decem ligat annis.

Unless we emend the next line in some way so as to read *quinque annos* or something of the sort for *qui nos* (cf. *De triumphis*, p. 127), there is some difficulty in reconciling this with the year 1245 of which Garland is writing, but the reference to the council of Lyons and the death of Alexander of Hales is too plain to admit of any other year. In any case 1204 is quite out of the question.

¹⁷ See the extract printed in Tanner, *Bibliotheca*, p. 539, note d.

¹⁸ *Gesta abbatum S. Albani* (Rolls Series), i. 196.

Cirencester, where he was made abbot in 1213 and died in 1217.¹⁹ He studied and taught at Paris, where he became a pillar of the school of the Petit-Pont, the range of his studies covering not only the liberal arts but also theology, medicine, and civil and canon law.²⁰ The exact time of his sojourn at Paris cannot be determined, the date of 1180 given by modern writers resting, like more than one supposed fact of mediaeval literary history, upon an unsupported statement of Du Boulay;²¹ but for reasons of age he can hardly have begun his studies there before 1175, and he must have returned some years before the death of Abbot Warin in 1195. Neckam was a man of much learning and a prolific author, his writings comprising fables, books on natural history, theological commentaries, and grammatical and lexicographical treatises; and while a comprehensive and critical study of his unpublished works is still lacking, enough is available to permit of satisfactory comparison with the Caius College vocabulary.²²

We naturally take up first the *De nominibus utensilium*, written, like Garland's *Dictionarius*, to illustrate in descriptive form the meanings of as many words as possible, but comparison with the

¹⁹ *Annales monastici* (Rolls Series), i. 63; ii. 289; iii. 40; iv. 409.

²⁰ See the *De laudibus*, ed. Wright, p. 503, and cf. in the same volume pp. 311, 414, 453.

²¹ *Historia Universitatis Parisiensis*, ii. 725: 'Alexander Nekamus natione Anglus circa an. 1180 Lutetiae legebat adhuc publice.'

²² The list of Neckam's works given by Bishop Tanner in his *Bibliotheca Britannico-Hibernica*, pp. 539-541, needs sifting and supplementing. Contributions have been made especially by Hauréau, in the *Nouvelle biographie générale*, xxxvii. 569, and in his study of the *De motu cordis*, *Mémoires de l'Académie des Inscriptions*, xxviii, 2, pp. 317-334; and by Paul Meyer, *Notice sur les Corrogationes Promethei d'Alexandre Neckam*, in the *Notices et extraits des MSS.*, xxxv, 2, pp. 641-682; and now by the elaborate bibliographical study of M. Esposito, *E. H. R.*, xxx. 450-471 (1915), who has further work in preparation. While citing this chapter in its original form (1909), Esposito fails to discuss the *Sacerdos ad altare*. The printed works comprise the *Fables*, published by Hervieux, *Fabulistes latins*², ii. 392-416; the *De naturis rerum* and its metrical paraphrase, the *De laudibus divine sapientie*, edited by Wright in the Rolls Series (1863); and the *De nominibus utensilium*, edited, without sufficient study of the glosses, by Wright, *A Volume of Vocabularies*, pp. 96-119, and by Scheler in the *Jahrbuch für englische und romanische Literatur*, vii. 58-74, 155-173. The memoir of Meyer gives extracts from the *Corrogationes*. The poem *De vita monachorum* attributed to Neckam by Wright, *Anglo-Latin Satirical Poets*, ii. 175-200, has been shown by Hauréau to be the work of another (*Notices et extraits de quelques MSS.*, i. 79). Cf. Thorndike, ii. ch. 43.

Sacerdos ad altare is rendered difficult by the fact that the two do not cover the same ground, the *De nominibus* dealing with the vocabulary of the household and of everyday life, while the *Sacerdos ad altare* is confined to court life, learning, and ecclesiastical terms. The Caius College vocabulary is also briefer and more elementary, being evidently designed for a lower stage of instruction. At one of the few points where the two treatises overlap, namely in dealing with the implements of the *scriptorium*, they show some things in common:

Caius College, MS. 385, p. 58: Librarius vero, qui vulgo scriptor dicitur, cathedram habeat cum ansis porrectis ad sustinendum asserem cui quaternus superponendus est. Asser autem centone operiatur cui pellis cervina maritetur ut pargameni vel membrane superfuitates rasorio seu novacula queant apcius eradi. Dehinc pellicula ex qua (p. 59) formabitur quaternus pumice mordaci purgetur et planula leni adequetur superficies. Folia iungantur tam in superiori [quam in inferiori] parte quaterni appendicis officio circumvolute. Quaterni margines altrinsecus punctorio distinguantur proportionaliter ut certius usu²³ regule lineetur quaternus errore sublato. Si vero in scribendo liture occurrunt aut obliteracio, non cancelletur scriptura sed abradatur. Opus est autem ut dente apri poliat²⁴ locus abrasionis aut panniculo lineo complicito frequenter superinducto confricetur. Sicut vero rubrica est obnoxia minio, sic etiam littere capitales nunc minio, nunc viridi colore, nunc²⁵ veneto se debent (?), nunc atiro²⁶ superbire videntur.

De nominibus utensilium, ed. Scheller, pp. 167-169: Scriptor ratorium vel novaculum ad abradendum sordes pergameni sive membrane. Pumicem habeat mordacem et planulam ad purgandum et equandum superficiem pergameni; plumbum etiam habeat et lineam quibus linetur pagina. . . . Cidula sive appendice tam in superiori quam inferiori parte folia habeat coniuncta. . . . Scripturus etiam in cathedra sedeat ansis utrimque elevatis pluteum sive asserem sustententibus. . . . Habeat etiam dentem verris sive apri sive liofe ad polliendum percameum cum liquescat litera (non dico elementum), sive litura facta sit, sive literas ascriptas cancellaverit. . . . Habeat et minium ad formandum literas rubeas vel puniceas vel feniceas sive capitales. Habeat etiam fuscum pulverem et azarram.

These resemblances are not conclusive, but when we turn to Neckam's principal printed work, the *De naturis rerum*, the agree-

²³ MS. *usus*.

²⁴ MS. *nuc*.

²⁵ I. e., *asuro*.

ment is very close. We find not only characteristic turns of phrase, like *filiis Ade*,²⁶ *celestis pagina*,²⁷ *vir maturi pectoris*,²⁸ *civilis iuris peritia*,²⁹ and other similarities to which attention is called in the notes, but some passages have been taken over bodily from one work into the other. The following is a good illustration of such borrowing:

MS. 385, p. 39: *Admirationem item pariat oculis intuitum*³⁰ *psittacus*, qui vulgo dicitur papagabio, cuius forma corporis aliquantisper falconem vel hobelum representat sed plumis intensissimi viroris decoratur. Pectore rotundo et rostro adunco munitur, tante virtutis ut cum in cavea recluditur, effectus etiam domesticus, ex virgis ferreis domuncula eius contextatur. Duris enim ictibus et corrosioni rostri non possent resistere³¹ *virge lignee*. Linguam habet spissam et formationi soni vocis humane ydoneam. Mire caliditatis et adulacionis est, in excitando risu preferendus histrionibus.

Miraberis³² etiam et ciconiam, que et crotolistria dicitur, que rostris crepitantibus crotolans horas diei distinguere perhibetur crepitatione sua. In yeme autem latet in aquis sed verno tempore Naiadum regna relinquens sub divo degit clementioris aure leta salutatrix.

De naturis rerum, pp. 87-88: *Psittacus*, qui vulgo dicitur papagabio, id est principalis seu nobilis gabio, eas inhabitat oras. . . . Forma corporis aliquantisper falconem vel hobelum representat, sed plumis intensissimi viroris decoratur. Pectore rotundo et rostro adunco munitur, tante virtutis ut cum in cavea recluditur, effectus etiam domesticus, ex virgis ferreis domuncula eius contextatur. Duris enim ictibus et corrosioni rostri non possent resistere *virge lignee*. Linguam habet spissam et formationi soni vocis humane idoneam. Mire caliditatis est et in excitando risu preferendus histrionibus.

P. 112: *Ciconia*, que et crotalistria, rostris crepitantibus crotolans, horas diei distinguere perhibetur crepitatione sua. In hieme autem latet in aquis, sed verno tempore Naiadum regna linquens, sub divo degit clementioris aure leta salutatrix.

The *Sacerdos ad altare* stands in close relation with still another of Neckam's works, the so-called *Corrogationes Promethei*, a treatise in two parts comprising a brief summary of Latin grammar and an elaborate verbal commentary on the Bible. The

²⁶ Ed. Wright, pp. 81, 83, 241, 333. Cf. pp. 119, 241: '*posteritas Ade*.' *De laudibus*, p. 463: '*natis Ade*'; p. 499: '*Ade successio*.'

²⁷ Pp. 3, 185, 257; *De laudibus*, pp. 414, 453, 500.

²⁸ P. 255.

²⁹ P. 311. Cf. Meyer, *Corrogationes Promethei*, p. 658.

³⁰ MS. *intuicum*. Cf. *De naturis rerum*, p. 94.

³¹ MS. *risistere*.

³² MS. *mirabilis*.

following passage from the first part of the *Corrogationes* can be paralleled in almost every phrase by the text of the *Sacerdos*:³³

Habet igitur gramatica suas regulas, dialetica maximas, rethorica locos communes, arismetica aporismata, musica anxiomata, geometria theorematum, astronomia continet canones sicut et decretorum volumen, medicina aphorismos, civilis iuris peritia regulas iuris, theologia regulas sicut et gramatica, unde etiam regulas Ticonii dicimus in celesti pagina.³⁴

Still more striking are the parallels between both parts of the *Corrogationes* and the gloss in the Caius College manuscript, which, being essentially lexicographical, follows the same method in illustrating the use of words and explaining their meaning and etymology. French equivalents are freely given in the gloss,³⁵ as in the *Corrogationes*, and the two works are usually in close verbal agreement. Examples are:³⁶

Quoniam igitur effluentia tempora cicius effectum suum apparere faciant in illa regione capitis que gall. dicitur *temples* (p. 8; Meyer, p. 664). Equi fortes emissarii dicuntur gall. *estaluns* (p. 11; Meyer, p. 674). Commissa sunt pignora, gall. *encuru* (p. 12; Meyer, p. 677). Pincerne debet dici, Re-

³³ See especially lines 51-56.

³⁴ MS. 72 of the library of Evreux, f. 3; and in the British Museum, Harl. MS. 6, f. 150; Royal MSS. 2, D, VIII, f. 17, and 5, C, V, f. 2 v; *Notices et extraits*, xxxv, 2, p. 660. For other MSS. see *E. H. R.*, xxx. 463.

³⁵ There are many French words in the gloss which are not in the *Corrogationes*. Examples are: *nastilus*, *butun* (p. 8); *manipulum*, *fanun* (p. 9); *calx*, *chaus* (p. 11); *antidonum*, *werdun* (p. 12); *abdicare*, *desavoer* (p. 13); *lavatorium*, *lavur* (p. 14); *capus*, *avis*, *muschet*; *cippus*, *cep*; *acceptifero*, *clamer quite*; *accipiter*, *ostur*, *ab australi parte veniens* (p. 17); *munium*, *forcele*; *matricuria*, *custerere*; *subula*, *aleyne* (p. 18); *catovolatilibus*, *cheysil*; *apote* et *antapote*, *taille* et *contretaille*; *instauramenta*, *les estors de la mesun*; *statera*, *balance* (p. 20); *locusta*, *languste* (p. 21); *classicum*, *glas*; *testudines*, *voutes*, et dicuntur a testudine, gall. *limazun* (p. 25); *serum*, *mege*; *sero*, *enter* (p. 30); *manutergium*, *tuayle* (p. 33); *musca*, *musche*; *rancor*, *rancun*; *sompnus*, *dormir*; *sompnia*, *sunges*; *catalaunensia*, *chaluns* (p. 34); *obses*, *ostage*; *superest*, *remeynt* (p. 35); *odorinsecos*, *brachez* (p. 36); *pilus*, *pestel* (p. 37); *palestris*, *lute* (p. 38); *municipium*, *forcele*; *munusculum*, *benbelet* (p. 39); *pedagium*, *page*; *larva*, *visere* (p. 43); *rostrum*, *bec* (p. 44); *cavea*, *cage*; *alvearia*, *rusches* (p. 45); *lurtisca*, *lure* (p. 47); *volumen*, *parchemin* (p. 49); *legare*, *deviser*; *satirici*, *quidam dii rurales*, gall. *saleceus* (p. 50); *fragum*, *frese* (p. 51); *operam*, *entente* (p. 52); *primum pilum*, *baneur* (p. 55); *cancellus*, *chancel*. . . item *cancellus*, *kenil* (p. 60). In some cases the scribe has left a blank space for the French word. An instructive study could be made of the French glosses to Neckam's works, especially those in the commentary on the *De nominibus utensilium*, where a collation of the MSS. has not yet been made. Cf. P. Meyer in the *Revue critique*, 1868, ii. 295 ff., and in *Romania*, xxxvi. 483-485; and for the MSS., *E. H. R.*, xxx. 461.

³⁶ See also below, nn. 40, 42, and note 2 to the text.

cense ciphum, gall. *Reschet cest hanap* (p. 13; Meyer, p. 666). Botrus est congregatio racemorum, racemus congregatio uvarum; botrus, gall. *muissine*, racemus *grape* (p. 15; Meyer, p. 674). Scorpio, *escurge* (pp. 16, 49; Meyer, p. 677). Examitus, gall. *samile* (p. 19; Meyer, p. 666). Criptas, gall. *crute* (p. 25; Meyer, p. 678). The gloss on Martial's murrina pocula (p. 28; Meyer, p. 667; cf. the use of the phrase in *De naturis rerum*, 1). Pro-tectum = *apentiz* (p. 30; Meyer, p. 679). Taxare iudicis est, *amesurer* gall. (p. 36; Meyer, p. 674). Taxus pro arbore que gal. dicitur *yf* (*ibid.*; *Revue Critique*, 1868, ii. 295). Macula est in oculo meo, g. *mayle est en le oyl* . . . Macula corporis est lesura, gall. *mayme* (p. 38; Meyer, pp. 673-674).

Examination of earlier lexicons would doubtless reveal the origin of the Latin portion of the greater part of these glosses, indeed the correspondence between the *Sacerdos ad altare* and any one of Neckam's writings might be explained on the ground of copying or the use of a common source; but such considerations are not sufficient to destroy the cumulative force of the argument. The close agreement of the text with the *De nominibus utensilium* and the *De naturis rerum*, and the exact correspondence of the gloss, in both Latin and French, with the *Corrogationes*, taken with the general similarities of style, point clearly to the conclusion that text and gloss are the work of one writer and that this writer is Alexander Neckam. This view is strengthened by considerations which show that both text and gloss were composed toward the close of the twelfth century³⁷ by one familiar with the schools of Paris, and that the gloss, at least, was written in England.

Let us begin with the gloss. Its author had studied at Paris, for he cites the *magistri Parisienses* on a question of etymology,³⁸ and knows the city even to its stench,³⁹ and he gives as an ex-

³⁷ Only further critical study can determine its chronological place among Neckam's works, whose dates have so far been but little investigated. In general it would seem that the grammatical works belong to the earlier period of his literary activity; the *Corrogationes* are certainly anterior to the *De naturis rerum*, in which they are cited (p. 16), and this is plainly earlier than its metrical paraphrase, the *De laudibus* (cf. Wright's introduction, p. lxxiv), to which he later composed a supplement (*E. H. R.*, xxx. 460).

³⁸ He says (p. 15) apropos of the word *cassilide* in certain MSS. of the Book of Tobit: 'Quidam autem qui in oculis suis scioli sunt capsilide dicunt; dicunt enim quod est dictio composita ex capsula et sedile. Magistri autem Parisienses dicunt cassilide a casse, quod est rethe.'

³⁹ P. 22: 'Unde, "Adveniente rota fetet Babilonia tota." Item dicitur (?) bene, Parisius Babilonia vult imitari in fetore suo.'

ample of a two days' journey the distance from Paris to a place which in the original was doubtless Orleans, as in the *Corrogationes*, but which the copyist, with strange disregard of space, has made into England.⁴⁰ Yet our glossator is no Frenchman; he speaks of tournaments as the "sport of French knights,"⁴¹ and he lives near enough to Wales — Cirencester was in a border county — to use the Welsh wars as an illustration of fighting.⁴² As he cites the decree of the Third Lateran Council forbidding tournaments as "detestable fairs,"⁴³ he must have written after 1179, and as they are still a French custom to him, he probably wrote before their introduction into England by Richard I, in 1194.⁴⁴

⁴⁰ P. 38: 'Sunt enim ab Anglicanis due diete Parisius.' Cf. Meyer, *Corrogationes*, p. 667.

⁴¹ P. 38: 'Troiana agmina a vulgo tormenta dicuntur ad differentiam hastiludiorum, que Alexander papa tercius detestabiles vocat nundinas. Item dici solent ab exercicio francorum militum.' On the French origin of tournaments and the mediaeval opinion which derived them from the games described in the Aeneid, see Du Cange, *Glossarium*, under *torneamentum*, and his sixth dissertation on Joinville. Neckam also refers to the *Troiana agmina* in the *De nominibus*, ed. Scheler, p. 70.

⁴² P. 38, where after the passage concerning *oploma* printed by Meyer (*Corrogationes*, p. 667) he says: 'Unde Seneca in declamationibus [3, praef., 10], "Quidam cum oplomatis, quidam cum Tracibus bene pugnant" . . . sed pugna cum Tracibus vel cum Wallensibus non est imaginaria pugna sed vera, sicut illa que cum viciis fit.' This passage is also in the *Corrogationes* (Royal MS. 2. D. viii, f. 43), and the same idea appears in a brief poem of Neckam addressed to Thomas, abbot of Gloucester (1179-1205), and preserved in a volume of extracts from Neckam's works, now in the library of the University of Cambridge (Gg. VI, 42, f. 223):

MAGISTER ALEXANDER DOMINO T. ABBATI CLAUDIE

Munus sed munusculum tibi mitto, Thoma,
Optans ut nec videas Romam nec te Roma,
Nec Romanum audias rursus ydioma.
Vix minus displiceat tibi vile scoma;
Romanorum oculos excecet glaucoma.
Revertentes felix vos reduxit diploma.
Claudie te teneat sancti claustrī doma;
Ibi corpus maceres, ibi carnem doma;
Pugnantem cum viciis te tegat oploma.
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⁴³ C. 20, Mansi, *Concilia*, xxii. 229.

⁴⁴ Rymer, *Foedera* (Record edition), i. 65; Roger of Hoveden, iii. 268. Cf. Ralph de Diceto, ii, pp. lxxx-lxxxi, 120; William of Newburgh, in Howlett, *Chronicles of Stephen*, ii. 422-423.

The text is, of course, not later than the gloss, and internal evidence assigns it to the same period. The most specific indices of date are afforded by the books enumerated under canon law and logic. The absence of any canonical works more recent than the decretals of Alexander III not only carries us back of the *Decretals* of Gregory IX (1234), but makes it improbable that the author wrote long after 1191, the latest date for the publication of the so-called *Compilatio prima* of Bernard of Pavia, the earliest of the collections of decretals known as the *Quinque compilationes*.⁴⁵ 'Decretales Alexandri tertii' may have meant either some collection of that Pope's decretals made in his lifetime,⁴⁶ or the canons of the Lateran Council of 1179, or one of the collections composed under his immediate successors in which his letters still formed the dominant element;⁴⁷ but in any case the expression would not have been used more than a very few years after Alexander's time, inasmuch as the grouping of decretals by Popes very soon gave way to the arrangement by subjects which was universally followed from Bernard of Pavia on. Not earlier than Alexander III, the list of books on canon law cannot be much later than 1191.⁴⁸

⁴⁵ The limits for the *Compilatio prima* are 1187 and 1191: Schulte, *Geschichte der Quellen des canonischen Rechts*, i. 82.

⁴⁶ Such as the collection in the British Museum described by Seckel, *Neues Archiv*, xxv. 527 (1899).

⁴⁷ The so-called *Collectio Casselana* (in Böhmer, *Corpus juris canonici*, Halle, 1747, ii, appendix, pp. 180 ff.) is entitled 'Decretales Alexandri III in concilio Lateranensi tertio generali anno MCLXXIX celebrato editae,' a title which fits only the first part of the compilation.

On the whole subject of the collections of this period see Schulte, *Beiträge zur Geschichte des canonischen Rechts von Gratian bis auf Bernhard von Pavia*, in *Vienna Sitzungsberichte* (1873), phil.-hist. Kl., lxxii. 481 ff.; Friedberg, *Die Canones-sammlungen zwischen Gratian und Bernhard von Pavia*, Leipzig, 1897 (with Seckel's review in the *Deutsche Literaturzeitung*, 1897, coll. 658 ff.); Seckel, "Ueber drei Kanones-sammlungen des ausgehenden 12. Jahrhunderts," in *Neues Archiv*, xxv. 521-537; H. Singer, *Neue Beiträge über die Dekretalensammlungen vor und nach Bernhard von Pavia*, in *Vienna Sitzungsberichte*, clxxi (1913).

⁴⁸ The line cannot be drawn sharply, for some time must be allowed for the spread of the newer collections. Stephen of Tournai, writing between 1192 and 1203, speaks of the 'inextricabilis silva decretalium epistolarum' sold under the name of Alexander III, but he does not say that the 'novum volumen,' of which he complains, composed of papal letters and read in the schools of Paris, bore this Pope's name. *Chartularium Universitatis Parisiensis*, i. 47, no. 48. Seckel thinks

This conclusion is confirmed by the list of books given under logic, where besides the familiar apparatus of the twelfth century — the *Old* and *New Logic* and the lesser treatises which regularly accompanied them — we find the *Metaphysics* of Aristotle, the *De generatione et corruptione*, and the *De anima*. Although the channels through which the *Metaphysics* and natural philosophy of Aristotle passed into western Europe are now fairly well understood,⁴⁹ the exact dates of their introduction have not been determined further than that they reached Paris, then the centre of philosophical and theological speculation, about the year 1200. Denifle pointed out that the *Metaphysics* is cited at second-hand by Peter of Poitiers, chancellor of the University of Paris, who died in 1205,⁵⁰ and by Simon of Tournai, who seems to have written before 1201, while he also maintained that the *De anima* was known to Simon⁵¹ and is quoted by Absalom of St. Victor, who died in 1203;⁵² but none of these instances has withstood successfully the attacks of subsequent critics,⁵³ though these and other works of Aristotle were certainly used by Neckam's friend, Alfred of 'Sareshel,' before 1217.⁵⁴ Indeed the whole trend of recent inquiry points in the direction of an early date for the translations of the *Metaphysics* and the physical works, very possibly anterior to 1200. On the other hand, the public and private reading of Aristotle's books on natural philosophy and the com-

this reference is most probably to the *Compilatio* of Bernard of Pavia (Hauck-Herzog, *Realencyklopädie*², xvi. 292).

⁴⁹ Cf. Chapter XI, n. 2.

⁵⁰ *Chartularium Universitatis Parisiensis*, i. 61, 71.

⁵¹ *Chartularium*, i. 71; Hauréau, *Histoire de la philosophie scholastique*, part 2, i. 59; idem, *Notices et extraits de quelques MSS. de la Bibliothèque Nationale*, iii. 256. On Simon's date see *Chartularium*, i. 45; Hauréau, *Notices et extraits*, i. 179. Matthew Paris narrates as of 1201 the story of the miracle which is said to have ended his studies (*M. G. H., Scriptores*, xxviii. 116).

⁵² *Chartularium*, i. 71. For the date of the abbot's death see *Gallia Christiana*, vii. 673. According to Hauréau, *Histoire de la philosophie scholastique*, part 2, i. 63, Neckam's *De nominibus utensilium* has a reference to the *De anima*. See also Thorndike, ii. 194 f.

⁵³ Baeumker, *Die Stellung Alfreds von Sareshel*, especially pp. 35 f., 44-46; and in *Philosophisches Jahrbuch*, xxvii. 479; Grabmann, *Aristotelesübersetzungen*, pp. 19-21, 190 ff.; Minges, in *Archivum Franciscanum historicum*, vi. 17 (1913).

⁵⁴ *Supra*, Chapter VI, end. For citations of the *De anima* in 1143, see Chapter III, n. 151.

mentaries upon them at Paris was forbidden by a provincial council in 1210,⁵⁵ and the prohibition was repeated and extended to the *Metaphysics* by the statutes of the papal legate in 1215.⁵⁶ They were still under the ban in 1231, when Gregory IX decreed that they should not be used until they had been examined and purged from error;⁵⁷ but they are found in general use shortly afterward,⁵⁸ and the whole of the new Aristotle appears in the arts course of 1255.⁵⁹ The meagreness of the list in the *Sacerdos ad altare* as compared with the large number of Aristotelian and Pseudo-Aristotelian treatises prescribed in 1255 points to a much earlier date, while the prohibitions of 1210 and 1215 make it likewise probably anterior to 1210. Indeed, so far as the chronological considerations already urged carry weight, it would seem that the *Sacerdos ad altare* contains one of the earliest mentions of the *Metaphysics* and the *De generatione* in Latin Europe. If this mention is an addition to the original list of the *Sacerdos ad altare*, the original list is still earlier.

The texts enumerated in other subjects do not yield chronological information of quite so definite a character, but they abundantly confirm the general conclusion that the list represents the learning of the twelfth century and not of the thirteenth. In medicine the author is familiar with the early translations from the Arabic, but not with Avicenna, whose influence dates from the thirteenth century; the omission of the *Versus Egidii*, composed by Giles of Corbeil, contemporary of Philip Augustus, likewise points to an early date.⁶⁰ As compared with the texts pre-

⁵⁵ *Chartularium*, i. 70.

⁵⁶ *Ibid.*, i. 78. The *Metaphysics* may have been included in the *libri naturales* condemned in 1210: Luquet, *Aristote et l'Université de Paris* (Paris, 1904), pp. 20-27.

⁵⁷ *Chartularium*, i. 136.

⁵⁸ Notably in the works of William of Auxerre, Philip de Grève, and William of Auvergne: Jourdain, pp. 288-299; Valois, *Guillaume d'Auvergne*, p. 200; Minges, in *Philosophisches Jahrbuch*, xxvii. 21-32 (1914); Grabmann, *Aristotelesübersetzungen*, pp. 28-38. See also Hauréau, in *Notices et extraits des MSS.*, xxxi, 2, p. 288; and Roger Bacon, in Rashdall, *Universities*, ii. 754.

⁵⁹ *Chartularium*, i. 277. The *De anima* appears in 1252 in the statutes of the English Nation (*ibid.*, i. 227).

⁶⁰ On Egidius see the note in the Paris *Chartularium*, i. 517; the introduction to V. Rose, *Egidii Corboliensis Viaticus* (Leipzig, 1907); and C. Vieillard, *Gilles de Corbeil* (Paris, 1909).

scribed in the earliest medical statutes, those of Paris between 1270 and 1274,⁶¹ Naples in 1278, and Salerno in 1280,⁶² the most important difference is the inclusion of Alexander of Tralles and of *materia medica* as represented in the works of Dioscorides and the so-called Macer. *Iohannicius*, Hippocrates, Galen, and the *Pantegni* are also mentioned in our list and not in these statutes, but no inference can be drawn from the absence of these names from the statutes, where they may have been included under the *ars medicinae*, a phrase which apparently designated a well known series of treatises rather than any particular work.⁶³

In mathematics and astronomy the author of the *Sacerdos ad altare* knows only Euclid and the astronomical compendium of Alfraganus, which were put into Latin in the earlier part of the twelfth century,⁶⁴ and Ptolemy's *Canons*; he does not mention the *Almagest*, of which translations were made in Sicily ca. 1160 and in Spain in 1175,⁶⁵ or any of the mathematical works of the early thirteenth century.

In grammar we find only the well known texts of the earlier

⁶¹ *Chartularium*, l. c.

⁶² De Renzi, *Collectio Salernitana* (Naples, 1852), i. 361; Haeser, *Geschichte der Medizin* (Jena, 1875), i. 829, where the date is wrongly given as 1276.

⁶³ *Chartularium*, i. 517: 'Debet audivisse bis artem medicine ordinarie et semel cursorie, exceptis urinis Theophili, quas sufficit semel audivisse ordinarie vel cursorie.' Rashdall, *Universities*, i. 429, identifies this *Ars medicine* with the *Ars parva* or *Tegni* of Galen. But it plainly includes the *De urinis* of Theophilus and seems to denote a regular set of treatises which students were in the habit of using. The language of the Naples and Salerno statute is still clearer in support of this view: 'Teneatur baccalarius audivisse bis ordinarie ad minus omnes libros artis medicine, exceptis urinis Theophili et libro pulsuum Filareti, quos sufficit audivisse semel ordinarie vel cursorie' (de Renzi, i. 362). The title *Ars medicine* occurs in various library catalogues (e. g. Delisle, *Cabinet des MSS.*, iii. 66), and the Erfurt library likewise has examples of an *Ars commentata*, copied in 1260 and 1288, which contains the treatises of Philaretus and Theophilus, the *Iohannicius*, the *Tegni*, and the *Aphorismi* and *Pronostica* of Hippocrates (MSS. F 264 and F 285: Schum, *Beschreibendes Verzeichnis der Amplonianischen Handschriften-Sammlung*, pp. 172, 192).

⁶⁴ On the translations of Euclid see Weissenborn, *Z. M. Ph.*, hist.-litt. Abth., xxv; and Steinschneider, *ibid.*, xxxi; supra, Chapter II, n. 26. On Alfraganus (al-Fargani) and his translators see Mädler, *Geschichte der Himmelskunde* (Braunschweig, 1873), i. 91-93; Wüstenfeld, pp. 26, 63; Suter, p. 18; Steinschneider, in *B. M.*, 1892, pp. 55-56, and his *H. U.*, pp. 554-556.

⁶⁵ Supra, Chapter V, n. 53, where it is noted that the translation of the *Canons* still requires investigation.

Middle Ages, Donatus and Priscian and Remigius of Auxerre, with no mention of the popular works of the thirteenth century, the *Doctrinale* of Alexander of Villedieu, composed in 1199, or the *Grecismus* of Evrard of Béthune, which appeared in 1212.⁶⁶

But if our list represents in general the learning of the twelfth century and not that of the thirteenth, it still belongs to the last quarter of its century and not to an earlier age. Apart from the decisive indications afforded by the mention of the *Decretals* of Alexander III and the *Metaphysics* and natural philosophy of Aristotle, it is plainly subsequent to the *Eplatheuchon* of Thierry of Chartres, composed before 1155 and itself in many respects far advanced for its time.⁶⁷ In the studies of the trivium there is substantial agreement, although Thierry does not have Remigius, Apuleius, or the 'Apodoxim';⁶⁸ but when we come to geometry, we find that Thierry knows only the Pseudo-Boethius and the *agrimensores*, and in astronomy he is restricted to the *Canons* of Ptolemy and certain tables.⁶⁹

The respectable list of classical authors which our text contains also points to the twelfth century rather than the thirteenth, when dialectic had driven the poets, historians, and moralists of ancient Rome from the curriculum in arts.⁷⁰ In the contest between the humanists and the logicians, Neckam is on the whole to be reckoned on the side of the humanists, not only by reason of his familiarity with the Roman poets but also because of the contempt he expresses for the subtleties of scholastic reasoning.⁷¹ In the *De naturis rerum* and the *Corrogationes* he quotes frequently and often at some length from Lucan, Ovid, Virgil, Claudian, Juve-

⁶⁶ See Reichling's introduction to his edition of the *Doctrinale* (Berlin, 1893).

⁶⁷ Supra, Chapter V, n. 51.

⁶⁸ On the *Posterior Analytics* (*Apodoxim*) see Chapter XI. Neckam, *De naturis rerum*, p. 293, speaks of the period before it was known at Paris.

⁶⁹ He knows, but does not here use, the *Planisphere*.

⁷⁰ This is seen in the earliest university curriculum in arts, the Paris course of 1215 (*Chartularium*, i. 78). Cf. Denifle, *Universitäten*, i. 758; Rashdall, *Universities*, i. 71, 433; Norden, *Die antike Kunstprosa*, ii. 725-726; Paetow, "The Neglect of the Ancient Classics at the Early Mediaeval Universities," in *Transactions of the Wisconsin Academy*, xvi. 311-319 (1908); the same, *The Arts Course at Medieval Universities*; the same, *The Battle of the Seven Liberal Arts* (Berkeley, 1914).

⁷¹ *De naturis rerum*, pp. 302 ff. Cf. *E. H. R.*, xxx. 451, n. 10.

nal, Martial, Statius, and Horace. He also draws largely from Solinus, and cites Pliny, Cicero, and Macrobius. How much further his classical knowledge went, cannot be determined without a study of his unprinted works, and even then we cannot be sure to what extent he relied upon collections of extracts⁷² or upon citations in Priscian and similar works.⁷³ For the same reason we cannot be certain how many of the writers mentioned in the *Sacerdos ad altare* were really known to its author, and we must be careful not to take the list too literally as representing what was actually read in the schools of Neckam's day. The number of authors is naturally less than the number of those cited by the most learned classical scholar of the preceding generation, John of Salisbury,⁷⁴ who is particularly full on the side of the historians; but save for the mention of Martial and the omission of Persius, the list of poets stands in substantial agreement with the more ambitious attempts of Conrad of Hirschau⁷⁵ and Hugh of Trimberg.⁷⁶ Of the ancient writers not mentioned in the text the gloss cites Persius, Claudian, Plautus,⁷⁷ Terence,⁷⁸ Valerius Maximus, Josephus, Macrobius, Prudentius, Fulgentius (*Mythologiae*), Chrysostom, and Martianus Capella.

As I have not been able to find another copy of the *Sacerdos ad altare*, the portion printed below is a faithful reproduction of the Caius College MS. Occasionally an obvious slip of the scribe has been corrected in the text, but in all such cases the MS. reading is given in a note.

⁷² Such as the Paris collection described by Wölfflin, *Philologus*, xxvii. 153; cf. Norden, *o. c.*, ii. 720; and the doctoral dissertation of Miss Eva M. Sanford on *mediaeval florilegia*, *Harvard Studies in Classical Philology*, xxxiv. 195-197 (1923). For such a set of extracts see MS. Vat. Pal. lat. 957, f. 97 (saec. xiii).

⁷³ Cf. Abelson, *Seven Liberal Arts*, pp. 23, 39, note 2.

⁷⁴ Schaarschmidt, *Johannes Saresberiensis*, pp. 81-125; Webb's edition of the *Policraticus*, i. pp. xxi-xlvi; A. C. Krey, in *Transactions of the Wisconsin Academy*, xvi, 2, pp. 948-987 (1910). The list of historians which John's pupil, Peter of Blois, says he has read (*Chartularium Univ. Par.*, i. 29) has a suspicious resemblance to that given by his master in the *Policraticus*, 8, 18. Cf. Rashdall, *Universities*, i. 65; Norden, *Kunstprosa*, ii. 719.

⁷⁵ *Conradi Hirsaugiensis Dialogus super auctores*, ed. Schepss, Würzburg, 1889.

⁷⁶ Huemer, *Das Registrum multorum auctorum des Hugo von Trimberg*, in *Vienna Sitzungsberichte*, phil.-hist. Kl., cxvi. 145-190.

⁷⁷ *Aulularia*, 400 (p. 41), and one or two doubtful citations.

⁷⁸ P. 24: 'lacrimae pro gaudio' (*Adelphoe*, 536-537).

(P. 47.) Scholaris liberalibus educandus artibus dipticas gerat quibus scitu digna scribantur. Ferat palmatoriam sive volariam vel ferulam qua manus puerilis leniter feriat ob minores excessus, virgis vero cedatur cum res id fieri desideraverit. Absint flagella et scorpiones, ne
 5 modum excedat castigando. Postquam alphabetum didicerit et ceteris puerilibus rudimentis imbutus fuerit, Donatum et illud utile mora- (p. 48) litatis compendium quod Catonis esse vulgus opinatur addiscat et ab egloga Theodoli¹ transeat ad egglogas bucolicorum, prelectis tamen quibusdam libellis informacioni rudium necessariis. Deinde satiricos et
 10 ystoriographos legat, ut vicia etiam in minori etate addiscat esse fugienda et nobilia gesta eroum desideret imitari. A thebaide iocunda transeat ad divinam eneida, nec negligat vatem quem Corduba genuit² qui non solum civilia bella describit sed et intestina. Iuvenalis moralia dicta in archano pectoris reservet, et Flacium nature summopere vitare
 15 studeat. Sermones Oracii et epistolas legat et poetriam et odas cum libro epodon. Elegias Nasonis et Ovidium metamorfoseos audiat³ sed et precipue libellum de remedio amoris familiarem habeat. Placuit tamen viris autenticis carmina amatoria cum satiris subducenda esse a manibus adolescentium, ac si eis dicatur,

20 Qui legitis flores et humi nascencia fraga,⁴
 Frigidus, o pueri, fugite hinc, latet anguis in herba.⁵

Librum fastorum non esse legendum nonnullis placet. Stacius Achilleidos etiam a viris multe gravitatis probatur. Bucolica Maronis et georgica multe sunt utilitatis. Salustius et Tullius de oratore et thus-
 25 canarum et de amicitia et de senectute et de fato multa commendacione digni sunt et paradoxe. Liber inscriptus de multitudine deorum⁶ a quibusdam reprobatur. Tullius de officiis utilissimus est. Martialis totus et Petronius⁷ multa continent in se utilia sed multa auditu in-

¹ On the popularity of the Eclogues of Theodulus in the Middle Ages, when they were closely associated with the *Disticha Catonis* and Avianus, see Manitius, in the *Mitteilungen der Gesellschaft für deutsche Erziehungs- und Schulgeschichte*, xvi. 38-39, 233-235 (1906); and *Lateinische Litteratur*, i. 570-574, ii. 811; G. L. Hamilton, in *Modern Philology*, vii. 169-185 (1909); Osternacher, in *Neues Archiv*, xl. 331-376 (1915). The *Disticha Catonis* is now conveniently edited, with an English translation, by Wayland J. Chase in the *University of Wisconsin Studies* (Madison, 1922).

² Here the gloss says (p. 50): 'Corduba est nomen civitatis de qua oriundus est Seneca, et inde Lucanus Cordubanus nomen accepit. Et nota quod Lucanus non ponitur in numero poetarum quia historiam composuit et non poema.' Cf. *De naturis rerum*, pp. 309, 337. Sandys, *History of Classical Scholarship*³, i. 550, note, omits Lucan from his list of the authors mentioned in this text, which he still (1921) ascribes to Garland.

³ MS. *audeat*.

⁴ MS. *fraga*, but the gloss has *fraga*.

⁵ Virgil, *Bucol.*, 3, 92-93.

⁶ I. e., *De naturis deorum*.

⁷ According to Manitius, *Rheinisches Museum*, xlvii, Erg.-Heft, p. 57, citations of Petronius are rare in France in the Middle Ages.

- digna. Simachi breve genus dicendi admiracionem ⁸ parit. Solinum ⁹
 30 de mirabilibus mundi et Sydonium et Suetonium et Quintum Curcium
 et Trogium Pompeium ¹⁰ et Crisippum ¹¹ et Titum Liphium commendo,
 sed Senecam ad Lucillum (p. 49) et de questionibus phisicis et de bene-
 ficiis relegere tibi utile censeas. Tragediam ipsius et declamaciones
 legere non erit inutile.
- 35 (P. 52.) Gramatice daturus operam audiat et legat barbarismum
 Donati et Prisciani maius volumen cum libro constructionum ¹² et
 Remigium et Priscianum de metris et de ponderibus et duodecim versi-
 bus Virgilii et Priscianum de accentibus, quem tamen multi negant
 editum esse a Prisciano, inspiciat diligenter.
- 40 Secundo inter liberales artes invigilare desiderans audiat librum
 categoricorum sillogismorum editum a Boecio et thopica eiusdem
 et librum divisionum et ysagogas Porphiri et categorias Aristotilis et
 librum periarmenias ¹³ et librum elenchorum et priores analetichos et
 apodoxim ¹⁴ eiusdem et topica et topica Ciceronis et librum periar-
 45 menias Apuleii. Inspiciat etiam methafisicam Aristotilis et librum
 eiusdem de generacione et corrupcione et librum de anima.¹⁵

⁸ MS. *admiracioni*. Cf. the passage printed above, p. 362; and the *De naturis rerum*, p. 94.

⁹ Solinus is freely used in the *De naturis rerum*. On his popularity in the Middle Ages see Manitius, *loc. cit.*, pp. 78 f., and in *Philologus*, xlvii. 562-565, li. 191 f.

¹⁰ Justin is generally so styled in mediaeval catalogues. Manitius, in *Rheinisches Museum*, xlvii, Erg.-Heft, p. 38.

¹¹ This name presents a problem, since, even if the author could have known of the philosopher Chrysippus, he would have had no reason for inserting his name among the historians of his list. Sandys conjectures Hegesippus, a plausible emendation in view of his appearance among the historians enumerated by John of Salisbury (*Policraticus*, 8, 18) and Peter of Blois (*Chart. Univ. Par.*, i. 29). I am inclined, however, to read 'Crispum,' under which name Sallust is cited by John of Salisbury (*Pol.*, 3, 12). This might easily have been changed to 'Crisippum' by a scribe who knew the name from the Roman satirists. Our author may have thought Sallust and Crispus distinct persons, which would not be surprising in view of a similar error on the part of the best classicist of the age, John of Salisbury, who makes two historians out of Suetonius Tranquillus; or he may have used the two words merely for variety, as in the case of Ovid and Naso. The repetition of Sallust's name is natural here, since it is obviously as an orator and moralist that he is mentioned with Cicero above.

¹² Here a space of six letters is left blank.

¹³ A common mediaeval form for the *De interpretatione*.

¹⁴ Sandys, in *Hermathena*, xii. 440, takes some pains to show that *apodoxium*, as he reads the word, is a corruption of ἀποδῆξις and denotes the *Posterior Analytics*. The matter is perfectly plain from the *De naturis rerum*, p. 293, where *apodixis* is used as a synonym for the *Posterior Analytics*, if not from the gloss (p. 53): 'Apodiptica apellatur res demonstrativa que tractatur in libro priorum [i. e., posteriorum] analeticorum ab Aristotile.' See above, Chapter XI.

¹⁵ Baeumker (*Philosophisches Jahrbuch*, xxvii. 485 f.) points out that this sen-

(P. 53.) In rethorica educandus legat primam Tullii rethoricam et librum ad Herrennium et Tullium de oratore et causas Quintiliani et Quintilianum de oratoris institutione.

- 50 Institutis arsmetice informandus arsmeticam Boecii et Euclidis¹⁶ legat. Postea musicam Boecii legat. Sic a regulis gramatice transeat quis ad maximas dialetice, dehinc ad communes locos rethorice, postmodum ad aporismata arismetice, postea ad axiomata musice.

- (P. 54.) Deinde ad theorematum geometrie que ordine artificiosissimo
55 disponit Euclides in suo libro.¹⁷

Demum ad canones Tholomei accedat astronomie secretis daturus operam. In artem vero quam subtilissime ediscerit Tholomeus ysaogogas scripsit compendiosas Alfraganus.

- 60 Studium medicine usibus filiorum Ade perutile subire quis desiderans audiat Ihohannicium¹⁸ et tam aphorismos quam pronostica Ypocratis et tegni¹⁹ Galieni et pantegni. Huius operis auctor est Galienus sed translator Constantinus.²⁰ Legat etiam tam particulares quam universales dietas Ysaac et librum urinarum²¹ et viaticum Constantini²² cum libro

tence is plainly a later addition to the original list, as these works do not belong here under dialectic and probably represent a later phase of the curriculum here described; but the addition may very well be by Neckam himself while these treatises were still a novelty and before the prohibitions of 1210 and 1215.

¹⁶ It is not clear why Euclid is mentioned here. In the next line *sic* is repeated.

¹⁷ Cf. *De naturis rerum*, p. 299; 'secundum artificiosam Euclidis dispositionem.'

¹⁸ The Latin name of the *Isagoge in artem parvam Galeni* of Honein ben Ishak, probably one of the earliest works translated into Latin from the Arabic. Cf. Steinschneider, *H. U.*, pp. 709 ff.; and *E. U.*, no. 81; Rose, *Hermes*, viii. 338; Neuburger, *Geschichte der Medizin*, ii, 1, pp. 166 f.

¹⁹ I. e., τέχνη. The *Tegni* is cited in the *De naturis rerum*, p. 267. On mediaeval versions of Galen and Hippocrates, see the MSS. listed by Diels, in *Abhandlungen* of the Berlin Academy, 1905.

²⁰ The real author of the general text-book of theoretical and practical medicine known under the Latin title of *Pantegni* was Ali ben el-Abbas, an Arabic physician of the tenth century. See Wüstenfeld, pp. 12-16; Haeser, *Geschichte der Medizin*, i. 576; Steinschneider, *H. U.*, p. 669. On the translations of Constantinus Africanus see the elaborate monograph of Steinschneider, in Virchow's *Archiv für pathologische Anatomie*, xxxvii. 351-410 (1866); and cf. Pagel, in Puschmann's *Handbuch der Geschichte der Medizin* (Jena, 1902), i. 643 ff.; Thorndike, i, ch. 32; supra, Chapter VII; and on the use of his works in the twelfth century, Sudhoff, in *Archiv für die Geschichte der Medizin*, ix. 348 (1916), who discusses the contents of a medical library ca. 1160.

²¹ Of the four treatises of the Jewish physician Isaac translated by Constantinus, the *Liber febrium* is here omitted. On Isaac's works cf. Steinschneider, *H. U.*, pp. 755 ff.

²² The original of the *Viaticum* was the work of ibn el-Jezzar, a pupil of Isaac: Steinschneider, in Virchow's *Archiv*, xxxvii. 363 ff., and *H. U.*, p. 703; Dugat, in *Journal Asiatique* (1855), 5, i. 289 ff.

- 65 urinarum et libro pulsuum²² et Diascoriden et Macrum in quibus de naturis herbarum agitur²⁴ et libros Alexandri.²⁵

In ecclesiastico iure informandus legat Burcardum et canones seu decreta Graciani²⁶ et decreta Yvonis et decretales Alexandri tertii.

- (P. 55.) Iuris civilis periciam volens quis addiscere primo institutis institutionum informetur, apices vero iuris intelligere volens audiat
70 codicem Iustiniani et utrumque digestorum volumen et tres partes et forzatam.²⁷ Decimum autem librum codicis et undecimum cum duodecimo vix presumit quis legere pre nimia sui difficultate.²⁸

- (P. 56.) Celestem paginam audire volens, vir maturi pectoris, audiat tam vetus instrumentum quam novum testamentum. Non solum
75 penthateuchum audiat set etiam eptatheucum, scilicet librum geneleos et exodum, leviticum, numeros et deuteronomium, Iosue et iudicum. Audiat postea Ruth et librum regum et librum paralipomenon qui et liber dierum dicitur ab Ebreis. Audiat Hesdram et Neemiam et Tobyam, Iudith et Hester. Felix erit si in noticiam venerit prophetice
80 doctrine que in Ethe,²⁹ Ysaya, Ieremya et Daniele et in libro duodecim prophetarum continetur. Pascet pias meditationes mentis liber Iob. Accedat etiam ad librum parabolarum Salomonis et ad ecclesiam et ad cantica canticorum. Utiles etiam erunt auditu tam liber sapientie qui Philonis dicitur quam ecclesiasticus quem conditum esse a Iesu filio

²² Probably the works of Theophilus are meant.

²⁴ Macer is the second title of a work *De naturis herbarum* probably written by Odo of Meung-sur-Loire in the eleventh century. See Rose, in *Hermes*, viii. 63; Manitius, in *Philologus*, li. 171 (= lii. 545), and in *Mitt. Gesells. Erziehungsgeschichte*, xvi. 251-253; H. Stadler, in *Archiv für die Geschichte der Naturwissenschaften*, i. 52-65 (1909); C. Resak, *Odo Magdunensis* (Leipzig diss., 1917); Manitius, *Lateinische Literatur*, ii. 539-547; Thorndike, i. 612-615, following his account of the Latin Dioscorides (pp. 608-611, with references). See also above, Chapter VII, n. 15. Macer and Dioscorides are mentioned in the *De naturis rerum*, p. 275.

²⁵ Alexander of Tralles. On his writings see Bloch in Puschmann's *Handbuch*, i. 535-544; Thorndike, ch. 25.

²⁶ Here the gloss reads: 'Decreta Gratiani dicuntur decreta que tantum modernis sunt in usu, que ultimo composita sunt a Gratiano et autentica (?) a sede Romana ita quod alia ab aliis composita publice legerentur, ut cum dicitur, Iste legit decreta, semper intelligendum Gratiani que sola approbata sunt a sede apostolica. . . . Sed decreta que Yvo composuit et Burcardus omnino recesserunt ab aula nisi ea que inde sumuntur a Gratiano in suis decretis.'

²⁷ I. e., *infortiatum*, the mediaeval name for the portion of the Digest extending from 24, 3, to 35, 2, 82, where the *Tres partes* begins.

²⁸ The last three books of the Code, treating of the administrative law of the later empire, were naturally less important and less intelligible in the Middle Ages than the other books. Under the title of *Tres libri* they were commonly grouped with the treatises which made up the *Volumen parvum*, and occupied a subordinate place in the course of legal instruction.

²⁹ So in MS.

- 85 Sirach perhibent. Liber ³⁰ Machabeorum prelia Iude et Ionathe fratris
eius et Symonis explicabit. Quam vero sit utilis liber (p. 57) psalmorum
nemo satis fideliter verbis posset explicare. Novum autem testamentum
audire quis desiderans audiat Matheum cum Marco, Lucam et Iohan-
nem, epistolas Pauli cum canonicis epistolis, actus apostolorum, et
90 apochalipsim Iohannis.

³⁰ MS. *leber*.

INDEXES

INDEX OF MANUSCRIPTS AND LIBRARIES

Unless otherwise indicated, the library is in each case the public library of the town.

- Alençon, MS. 10, p. 231.
 Arras, MS. 229, p. 185.
 Assisi, MS. 90, p. 214.
 Avignon, MS. 1022, p. 51.
 Avranches, MS. 221, p. 224;
 MS. 224, p. 232;
 MS. 227, pp. 230 ff., 239;
 MS. 235, pp. 30, 52.
- Barcelona, Archives of the Crown of
 Aragon, p. 8;
 MS. Ripoll 204, p. 214;
 MS. Ripoll 225, pp. 8, 9, 83.
 — University, MS. 7-2-6, p. 128.
- Basel, University:
 MS. B. viii. 4, p. 358;
 MS. D. ii. 18, pp. 131-134;
 MS. F. iv. 31, p. 179.
- Beauvais, Cathedral, p. 128.
- Bec, Abbey, pp. 26, 41.
- Berlin, Staatsbibliothek:
 Cod. elect. 332, p. 185;
 Cod. elect. 898, pp. 131-134;
 Cod. elect. 964, p. 126;
 Cod. lat. 550, p. 291.
- Bern, MS. 216, p. 16.
- Bologna, Cathedral, p. 164.
 — University:
 MS. 164 (153), p. 318;
 MS. 419 (717), p. 302;
 MS. 449 (760), p. 14;
 MS. 1383 (2634), p. 269;
 MS. 1462 (2764), p. 349;
 MS. 1515 (2832), p. 251.
- Boncompagni, Prince B., MSS. of, pp. 28,
 49.
- Brescia, MS. A. iv. 3, p. 214.
- Breslau, University, MS. F. 21, p. 291.
- Bruges, MS. 546, p. 358.
- Brussels, Bibliothèque Royale, MS. 2194,
 p. 87.
- Bury St. Edmunds, p. 93.
- Cambrai, MS. 911, p. 131;
 MS. 930, pp. 98-103, 135.
- Cambridge, Clare College, p. 125;
 MS. 15, pp. 25, 28, 49, 77, 347,
 351 f., 354.
 — Corpus Christi College:
 MS. 207, p. 214;
 MS. 335, p. 47;
 MS. 380, p. 171.
 — Fitzwilliam Museum:
 McClellan MS. 165, pp. 21, 23, 25,
 28 f., 89, 97 f.
 — Gonville and Caius College:
 MS. 109, pp. 274, 281;
 MS. 110, p. 44;
 MS. 336, p. 208;
 MS. 385, pp. 356-370;
 MS. 413, pp. 52 f.;
 MS. 456, p. 72.
 — Magdalene College, MS. 27, p. 78.
 — Pembroke College, MS. 227, p. 44.
 — Peterhouse, pp. 125 f., 209.
 — Trinity College, MSS. 1102, 1144,
 p. 208.
 — University:
 MS. Ff. vi. 13, pp. 354 f.;
 MS. Gg. vi. 3, p. 126;
 MS. Gg. vi. 42, p. 365;
 MS. Ii. i. 1, p. 126;
 MS. Ii. iv. 27, pp. 209-212;
 MS. Ii. vi. 5, p. 33;
 MS. Ii. vi. 11, p. 119;
 MS. Kk. iv. 7, p. 44.

- Canterbury MSS., pp. 33, 87, 126, 237.
 Cesena, Biblioteca Malatestiana, MS.
 xxvi. 4, pp. 131, 134 f.
 Chartres, MS. 131, p. 147;
 MS. 213, p. 90;
 MS. 214, pp. 22 f., 34, 91, 104, 123;
 MSS. 497-498, p. 91.
 Cheltenham, Philipps Library, pp. 30,
 355.
 Coimbra, University, MS. 529, p. 77.
 Cologne, Dominicans, pp. 109, 307.
 Cracow, University, p. 183;
 MS. 569, p. 171;
 MS. 653, p. 277.
 Cues, Spitalbibliothek:
 MS. 177, pp. 166-168;
 MS. 182, p. 277;
 MS. 209, p. 287.
 Dee, John, MSS. of, pp. 33, 93, 179.
 Dijon, MS. 448, p. 83;
 MS. 1045, pp. 49, 51, 54, 126.
 Douai, MS. 438, p. 358.
 Dresden, Landesbibliothek, MS. Db. 87,
 pp. 25, 107, 109 f.
 Dublin, Trinity College, MS. 369, p. 126;
 MS. 517, p. 85.
 Durham, Cathedral, MS. C. 1. 17, p. 278.
 Edinburgh, University:
 MS. 107, p. 85;
 MS. 132, pp. 285, 287.
 Erfurt, pp. 69, 209;
 Ampl. MS. F. 250, p. 131;
 Ampl. MS. F. 264, p. 369;
 Ampl. MS. F. 285, p. 369;
 Ampl. MS. F. 351, p. 278;
 Ampl. MS. O. 7, pp. 166 f.;
 Ampl. MS. O. 84, p. 126;
 Ampl. MS. Q. 290, pp. 179 f.;
 Ampl. MS. Q. 351, p. 115;
 Ampl. MS. Q. 363, p. 45;
 Univ. MS. Q. 61, p. 167;
 Univ. MS. 1127, p. 102.
 Escorial, Real Biblioteca:
 MS. i. F. 8, p. 14;
 MS. ii. O. 10, p. 14;
 MS. iii. E. 15, p. 291;
 Escorial, Real Biblioteca (cont.):
 MS. iii. F. 8, p. 287;
 MS. iii. O. 2, pp. 26, 41.
 Eton College:
 MS. 134, p. 170;
 MS. 161, p. 26.
 Evreux:
 MS. 60, p. 83;
 MS. 72, pp. 363 f.
 Florence, Biblioteca Mediceo-Lauren-
 ziana, p. 241;
 MS. Ashburnham, 1249, p. 349;
 MS. Gadd. lxxxix. sup. 45, p.
 104;
 MS. Gadd. rel. 74, pp. 26, 33;
 MS. Laur. v. 10, p. 172;
 MS. Laur. xxx. 29, p. 78;
 MS. S. Cr. xiii. sin. 9, p. 277;
 MS. S. Cr. xxiii. dext. 3, p. 214;
 MS. Strozzi 22, p. 224;
 MS. Strozzi 61, p. 222.
 — Biblioteca Nazionale Centrale:
 MS. Conv. soppr. A. 5. 2654,
 p. 158;
 MS. Conv. soppr. I. II. 372, p.
 14;
 MS. Conv. soppr. J. II. 10, pp.
 45, 111;
 MS. Pal. 639, p. 166.
 Geneva, University, MS. Fr. 170, p. 302.
 Glasgow, Hunterian Museum, MS. 467,
 pp. 86 f.
 Laon:
 MS. 71, p. 86;
 MS. 449, p. 251.
 Leipzig, University, pp. 199 f.;
 MS. 1131, p. 132.
 Le Mans, MS. 79, p. 351.
 Leyden, University:
 MS. Lat. 64, p. 167.
 MS. Scaliger 46, p. 77.
 Limoges, MS. 9, p. 126.
 London, British Museum:
 Add. MS. 22414, p. 329;
 Add. MS. 35091, p. 200;

London, British Museum (cont.):

- Arundel MS. 356, p. 53;
 Arundel MS. 377, pp. 21, 23, 25, 28 f.,
 52, 125, 127, 131;
 Cotton MS. Tiberius C. i, p. 83;
 Cotton MS. Galba E. iv, pp. 26, 93-95;
 Cotton MS. Vitellius A. xii, pp. 86-88;
 Cotton MS. Titus D. iv, pp. 33, 45, 48,
 51, 54, 58-65;
 Cotton MS. Titus D. vii, p. 86;
 Cotton MS. App. vi, pp. 121 f.;
 Harleian MS. 1, p. 274;
 Harleian MS. 647, p. 83;
 Harleian MS. 978, p. 348;
 Harleian MS. 4025, pp. 217 f.;
 Harleian MS. 5218, p. 257;
 Harleian MS. 5685, pp. 180 f.;
 Harleian MS. 5786, pp. 184 f.;
 Royal MS. 2 D. viii, pp. 363, 365;
 Royal MS. 5 C. v, p. 363;
 Royal MS. 6 D. ix, p. 150;
 Royal MS. 7 D. xxv, pp. 31 f.;
 Royal MS. 12 F. xvii, p. 126;
 Royal MS. 12 G. viii, p. 246;
 Royal MS. 15 A. xxvii, p. 35;
 Royal MS. 15 B. iv, p. 331;
 Royal MS. 15 B. ix, p. 52;
 Royal MS. 15 C. iv, p. 30;
 Royal MS. 15 C. xiv, p. 170;
 Royal MS. App. 85, p. 127;
 Sloane MS. 2030, p. 30;
 Sloane MS. 3697, p. 122.

Louvain, University, MS. 217 (51), pp.
 5 f.

Luxembourg, Bibliothèque Nationale:
 MS. 22, pp. 202-206.

Lyons:

- MS. 328, p. 30;
 MS. 867, p. 355.

Madrid, Academia de la Historia:

MS. Est. 11. gr. 1. 22, p. 108.

— Biblioteca Nacional:

- MS. 19, p. 8;
 MS. 523, p. 147;
 MS. 1193, p. 14;
 MS. 1407, p. 14;
 MS. 1428, p. 225;

Madrid, Biblioteca Nacional (cont.):

- MS. 1978, p. 208;
 MS. 9726, p. 225;
 MS. 10006, p. 14;
 MS. 10009, pp. 69 f., 270;
 MS. 10010, p. 14;
 MS. 10016, pp. 22, 123-125;
 MS. 10023, p. 270;
 MS. 10053, pp. 13 f., 111, 273;
 MS. 10063, pp. 11, 77.
 MS. 10113, p. 108;

— Biblioteca del R. Palacio:

MS. 2 L. 12, p. 164.

— University:

MS. 120, p. 352.

Manchester, Rylands Library, MS. 67,
 p. 45.

Marseilles, Archives départementales:
 B 365, pp. 308 f.

Metz, MS. 287, p. 44.

Milan, Biblioteca Ambrosiana:

- MS. A. 3 sup., pp. 24, 117;
 MS. C. 10 sup., p. 209;
 MS. D. 11 inf., p. 318;
 MS. H. 109 sup., p. 122;
 MS. L. 92 sup., pp. 291-298;
 MS. R. 55 sup., pp. 230 f.

Modena, Biblioteca Estense:

- MS. 15, p. 349;
 MS. 79, p. 287.

Monte Cassino, Abbey:

- MS. 220, p. 195;
 MS. 334, p. 186.

Montpellier, Ecole de Médecine:

- MS. 18, p. 208;
 MS. 145, pp. 26, 89;
 MS. 277, pp. 219-221.

Munich, Staatsbibliothek, p. 200;

- Cod. lat. 35, p. 208;
 Cod. lat. 317, p. 238;
 Codd. lat. 380, 435, p. 147;
 Cod. lat. 489, p. 283;
 Cod. lat. 10268, pp. 246, 273, 280, 283-
 296;
 Cod. lat. 10663, p. 287;
 Cod. lat. 13021, p. 24;
 Cod. lat. 16123, pp. 231 f.;
 Cod. lat. 18927, p. 24.

Naples, Biblioteca Nazionale:

MS. C. viii. 50, pp. 44-51, 54, 56-65;

MS. D. viii. 4, pp. 69 f.;

MSS. D. viii. 65-67 bis, p. 256;

MS. D. xiv. 31, p. 318;

MS. F. xv. 51, p. 287.

Ntmes, MS. 52, p. 201.

Oxford, Bodleian:

MS. Ashmole 179, p. 217;

MS. Ashmole 191, p. 339;

MS. Ashmole 192, p. 126;

MS. Ashmole 304, pp. 53, 136;

MS. Ashmole 342, p. 79;

MS. Ashmole 361, p. 123;

MS. Ashmole 369, pp. 121 f.,
126;

MS. Ashmole 1471, pp. 219 f.;

MS. Auct. F. 1. 9, pp. 22 f., 89,
114-117, 123;

MS. Auct. F. 3. 14, p. 84;

MS. Auct. F. 5. 19, p. 84;

MS. Bodley 44, p. 280;

MS. Bodley 266, p. 287;

MS. Bodley 300, p. 125;

MS. Bodley 463, pp. 13, 77;

MS. Bodley 625, pp. 53, 78;

MS. Bodley 679 (2596), p. 26;

MS. Canonici Misc. 61, p. 123;

MS. Canonici Misc. 396, p. 79;

MS. Canonici Misc. 555, pp.
259, 272, 287, 290-298;

MS. Digby 11, p. 26;

MS. Digby 40, pp. 87, 122,
124 f.;

MS. Digby 46, pp. 135 f.;

MS. Digby 50, p. 78;

MS. Digby 56, p. 86;

MS. Digby 57, p. 126;

MS. Digby 68, p. 30;

MS. Digby 103, pp. 217 f.;

MS. Digby 114, p. 44;

MS. Digby 149, p. 126;

MS. Digby 152, pp. 302, 323;

MS. Digby 159, pp. 74-76;

MS. Digby 162, p. 31;

MS. Digby 168, p. 125;

Oxford, Bodleian (cont.):

MS. Digby 174, pp. 24, 53, 283;

MS. Digby 179, pp. 111 f.;

MS. E Musaeo 181, p. 126;

MS. E Musaeo 219, p. 219;

MS. Laud Misc. 594, pp. 45,
77, 126;

MS. Misc. Gr. 272, p. 175;

MS. Rawlinson C. 749, p. 85;

MS. Rawlinson D. 483, pp. 348,
353;

MS. Rawlinson G. 40, p. 89;

MS. Savile 15, pp. 72, 74-77;

MS. Savile 21, pp. 123, 125,
135 f.;

MS. Selden Arch. B. 13, p. 34;

MS. Selden Arch. B. 34, pp. 71-
73;

MS. Selden supra 24, p. 225;

MS. Selden supra 25, pp. 52,
332;

MS. Selden supra 31, p. 47;

MS. Selden supra 76, p. 126.

— Corpus Christi College:

MS. 86, p. 26;

MS. 95, pp. 45 f.;

MS. 125, p. 281;

MS. 221, p. 291;

MS. 233, pp. 49, 77;

MS. 243, pp. 45, 48 f., 51, 54,
57-65, 96-98, 167 f.;

MS. 251, pp. 25, 179;

MS. 283, pp. 22-24, 117 f.;

MS. 287, pp. 311, 316, 319, 353 f.

— Jesus College:

MSS. 66, 105, 106, p. 126.

— Magdalen College:

MS. 162, p. 237.

— Merton College:

MS. 30, p. 185;

MS. 278, p. 277;

MS. 324, p. 219.

— Oriel College:

MS. 7, p. 26.

— St. John's College:

MS. 17, pp. 83 f., 329;

MS. 188, pp. 13, 127.

Padua, Biblioteca Antoniana:

- MS. 370, p. 269;
- MS. 401, pp. 231 f.;
- MS. 421, p. 224;
- MS. 428, p. 224;
- MS. 557, p. 231.

Palermo, Biblioteca Comunale:

- MS. Qq. H. 6, p. 187;
- MS. 4 Qq. A. 10, pp. 122, 280.

— Cathedral:

- MS. 544, pp. 186 f.

Paris, Bibliothèque de l'Arsenal:

- MS. 371, p. 83;
- MS. 529, p. 147;
- MS. 1035, p. 274;
- MS. 2872, p. 219.

— Bibliothèque Mazarine:

- MS. 3642, pp. 22 f., 34, 52, 86, 123;
- MS. 3716, pp. 302, 306-325.

— Bibliothèque Nationale, pp. 199, 232;

- MS. fr. 1296, pp. 302, 304;
- MS. fr. 12400, pp. 301, 304-306;
- MS. fr. 18953, p. 72;
- MS. gr. 933, p. 147;
- MS. gr. 2231, pp. 176 f.;
- MS. gr. sup. 263, p. 171;
- MS. lat. 1002, p. 215;
- MS. lat. 1461, p. 79;
- MS. lat. 1778, p. 185;
- MS. lat. 2020, p. 86;
- MS. lat. 2389, pp. 20, 26;
- MS. lat. 2948, p. 214;
- MS. lat. 6286, pp. 26, 41;
- MS. lat. 6287, pp. 179 f.;
- MS. lat. 6385, pp. 26, 41;
- MS. lat. 6415, pp. 26, 36-41;
- MS. lat. 6567 A, pp. 166 f.;
- MS. lat. 6628, pp. 26, 41;
- MS. lat. 6739, p. 26;
- MS. lat. 6865, p. 208;
- MS. lat. 6914, pp. 132-134;
- MS. lat. 7020, pp. 349 f.;
- MS. lat. 7100, p. 213;
- MS. lat. 7226 B, pp. 182 f.;
- MSS. lat. 7254-7260, p. 164;

Paris, Bibliothèque Nationale (cont.):

- MS. lat. 7316, p. 77;
- MS. lat. 7320², p. 222;
- MS. lat. 7329, p. 77;
- MS. lat. 7337, p. 217;
- MS. lat. 7354, pp. 78 f.;
- MS. lat. 7432, p. 111;
- MS. lat. 7434, p. 126;
- MS. lat. 7440, p. 77;
- MS. lat. 10271, p. 126;
- MS. lat. 10358, p. 86;
- MS. lat. 11260, pp. 85 f., 331;
- MS. lat. 13951, pp. 71, 80;
- MS. lat. 14070, p. 287;
- MS. lat. 14700, pp. 26, 238;
- MS. lat. 14704, pp. 97 f.;
- MS. lat. 14738, pp. 105 f., 164;
- MS. lat. 15015, p. 95;
- MS. lat. 15118, p. 85;
- MS. lat. 15120, p. 90;
- MS. lat. 15460, p. 208;
- MS. lat. 16080, p. 237;
- MS. lat. 16200, p. 164;
- MS. lat. 16208, pp. 24, 52, 117;
- MS. lat. 16581, pp. 166 f.;
- MS. lat. 16610, p. 218;
- MS. lat. 16646, p. 50;
- MS. lat. 17864, p. 164;
- MS. lat. 18081, pp. 25 f.;
- MS. lat. n. a. 693, p. 25;
- MS. lat. n. a. 1401, pp. 275 f., 280, 283-287, 291-296.

— Bibliothèque de la Sorbonne, pp. 45, 50, 166 f., 238.

— University:

- MS. 601, pp. 278, 282.

Parma, Biblioteca Palatina:

- MS. 719, p. 111;
- MS. 720, p. 45.

Petau MSS., p. 45.

Pichon, J., MS. of, p. 303.

Pisa, Convento S. Caterina:

- MS. 11, pp. 272, 274, 281;
- MS. 146, p. 269.

Prague, University and Public Library:

- MS. 1404, p. 208;
- MS. 1650, pp. 26, 41.

- Rennes, MS. 227, pp. 302, 312.
 Rheims, MS. 872, pp. 26, 41;
 MS. 877, p. 26.
 Richard of Furnival, MSS. of, pp. 31,
 50, 167, 183, 238.
 Rome, Biblioteca Angelica:
 MS. 29, p. 221;
 MS. 1413, p. 84;
 MS. 1461, pp. 318, 320.
 — Biblioteca Casanatense:
 MS. 1178, p. 217;
 MS. 2052, pp. 95 f., 358.
 — Biblioteca Chigi:
 MS. F. iv. 48, pp. 53, 111.
 — Biblioteca Vaticana, pp. 165, 318;
 MS. Barberini 156, p. 274;
 MS. Barberini 178, p. 208;
 MS. Barberini 179, p. 208;
 MS. Borghese 306, p. 239;
 MS. Borghese 312, p. 77;
 MS. Ottoboni lat. 227, pp. 151
 f., 185, 232;
 MS. Ottoboni lat. 309, pp. 52 f.;
 MS. Ottoboni lat. 1811, pp.
 318, 349;
 MS. Pal. lat. 957, p. 371;
 MS. Pal. lat. 1071, pp. 283,
 299-326;
 MS. Pal. lat. 1273, pp. 219-221;
 MS. Pal. lat. 1363, p. 287;
 MS. Pal. lat. 1370, p. 287;
 MS. Pal. lat. 1371, pp. 53, 159,
 191-193;
 MS. Pal. lat. 1406, p. 222;
 MS. Pal. lat. 1407, p. 44;
 MS. Pal. lat. 1417, pp. 339-
 344;
 MS. Pal. lat. 1457, p. 78;
 MS. Regina lat. 123, pp. 8, 83;
 MS. Regina lat. 773, pp. 219 f.;
 MS. Regina lat. 980, p. 189;
 MS. Regina lat. 1111, p. 318;
 MS. Regina lat. 1227, pp. 256,
 318, 349 f.;
 MS. Regina lat. 1242, p. 260;
 MS. Regina lat. 1446, pp. 318 f.,
 349-351;
 MS. Regina lat. 1452, p. 77;
 Rome, Biblioteca Vaticana (cont.):
 MS. Regina lat. 1617, p. 318;
 MS. Regina lat. 1855, pp. 224 f.;
 MS. Rossi vii. 58, pp. 352 f.;
 MS. Rossi ix. 111, pp. 291 f.;
 MS. Rossi xi. 7, p. 257;
 MS. Rossi xi. 144, pp. 257, 282;
 MS. Urbino lat. 106, p. 214;
 MS. Urbino lat. 234, pp. 131-
 133;
 MS. Urbino lat. 1014, pp. 318,
 354;
 MS. Vat. lat. 175, p. 147;
 MSS. Vat. lat. 820, 821, p. 214;
 MS. Vat. lat. 1500, p. 251;
 MS. Vat. lat. 2056, pp. 155,
 157 f., 163, 191-193;
 MS. Vat. lat. 2057, pp. 105,
 108;
 MS. Vat. lat. 2063, p. 166;
 MS. Vat. lat. 2116, p. 241;
 MS. Vat. lat. 2118, p. 237;
 MS. Vat. lat. 2184, p. 278;
 MS. Vat. lat. 2429, pp. 131-
 133;
 MS. Vat. lat. 3096, p. 14;
 MS. Vat. lat. 3123, pp. 86, 327-
 332;
 MS. Vat. lat. 4087, p. 287;
 MS. Vat. lat. 4094, p. 217;
 MS. Vat. lat. 4428, p. 273;
 MS. Vat. lat. 4603, p. 45;
 MS. Vat. lat. 4864, p. 219 f.;
 MS. Vat. lat. 5366, pp. 256, 318,
 349;
 MS. Vat. lat. 5713, p. 222.
 Rouen, MSS. 237-238, p. 330;
 MS. 654, p. 150.
 Salutati, Coluccio, MSS. of, pp. 157,
 164, 167.
 Schlettstadt, p. 30.
 Seville, Cathedral:
 MS. Z. 136. 14, p. 284.
 — Biblioteca Colombina:
 MS. 5-1-21, p. 11;
 MS. 5-5-14, p. 11;
 MS. 5-5-21, p. 14;

Seville, Biblioteca Colombina (cont.):

- MS. 7-4-22, p. 16;
- MS. 7-6-2, pp. 14, 269;
- MS. 7-7-1, p. 287.

Siena, MS. H. ix. 2, pp. 230 f.

Subiaco, MS. 265, p. 214.

Tarragona, Biblioteca provincial, p. 8.

Toledo, Cathedral, pp. 108, 124;

MS. 17-14, pp. 228 f., 234-238.

Tortosa, Cathedral, MS. 80, p. 83.

Tours, MS. 301, p. 150.

Trier, MS. 1041, pp. 91 f.

Troyes, MS. 844, p. 214.

Valencia, University, MS. 402, pp. 302, 312.

Venice, Biblioteca Naniana, p. 251.

— St. Mark's (old nos. except those marked Cl.), pp. 199, 208, 320;

MS. gr. 313, pp. 163 f.;

MS. gr. iv. 57 sup., p. 221;

MS. lat. Fondo antico 231, p. 240;

MS. lat. vi. 37, pp. 14, 224;

MS. lat. viii. 22, pp. 286, 288, 338-344;

Venice, St. Mark's (cont.):

MS. lat. viii. 168, pp. 230 f.;

Cl. x. 15, 18, p. 238;

Cl. x. 138, p. 166;

Cl. x. 158, p. 174;

Cl. xi. 107, pp. 49, 77.

Vienna, Nationalbibliothek:

MS. 275, p. 24;

MS. 1634, p. 132;

MS. 2436, p. 49;

MS. 2504, pp. 28, 347, 354;

MS. 3124, p. 287;

MS. 3394, p. 287;

MS. 5221, p. 217;

MS. 5327, p. 78;

MS. 5508, p. 78;

MS. 10948, p. 301;

MS. Med. Gr. 1, p. 306.

Wolfenbüttel, Landesbibliothek:

MS. 1014, p. 219;

MS. 2917, p. 217 f.;

MS. Gud. lat. 147, pp. 106-111, 159, 191-193;

MS. Gud. lat. 326, p. 213.

Worcester, Cathedral:

MS. F. 40, p. 131;

MS. Q. 60, p. 257.

SUBJECT INDEX

- Abacus, 22, 35, 53, 83-85, 91, 113, 249, 327-335.
 Acids, 295.
 Alchemy, 5, 12, 19, 30, 122 f., 126, 153, 165, 222, 246, 259 f., 280 f., 297.
 Algebra, 12, 15, 122 f., 249.
 Algorism, 87, 291.
 Angels, 280, 285, 293.
 Animals, 16, 37, 219, 221, 245, 254-256, 277-279, 300-326. *See* Birds, Falcons.
 Antipodes, 63.
 Arabs, science of, 3-82, 87, 90 f., 96-108, 110 f., 115-141, 156 f., 243-249, 252-254, 259-261, 265, 269-271, 273-288, 292, 318-320, 342, 359; translations from, 3-19, 22-25, 30, 43-47, 49-51, 56, 68-82, 92-108, 110 f., 119-123, 131-140, 143, 152 f., 171, 184, 219, 229, 238, 244 f., 247, 260 f., 269-271, 273 f., 277-279, 314, 318-320, 350, 367-369, 374 f.
 Arithmetic, 5, 8, 14, 24, 33, 35, 50, 83-88, 91, 249, 291, 327-335, 374. *See* Abacus.
 Arts, liberal, 24, 36, 346 f., 366-373.
 Astrolabe, 9 f., 28 f., 41, 51-53, 56, 98, 113-115, 122, 291.
 Astrology, 5, 8-17, 30, 43-47, 49, 58, 65 f., 68-81, 98, 110-112, 121, 124, 126-128, 164, 219 f., 244-248, 257-259, 270, 275-277, 280, 283, 285-291, 341 f.
 Astronomy, 3, 5-12, 14-17, 22-24, 37 f., 41-44, 47, 51-54, 62-64, 72-74, 82-126, 157-164, 191, 245, 259, 266 f., 270, 277, 282 f., 285, 288, 336-345, 369 f., 374.
 Authority, attitude toward, 40-42, 315, 326.
 Barnacle geese, 263, 321.
 Baths, 257, 292 f., 296.
 Bible, 143, 151, 184 f., 337, 362, 375 f.
 Birds, 253-256, 263, 277-279, 299-326, 346-355, 362. *See* Falcons.
 Bloodletting, 289.
 Botany, 6, 37, 128, 132 f., 375.
 Brain, 37 f., 92.
 Bronze, 295.
 Calendar, 23 f., 32 f., 82-88, 113, 124, 127, 288, 291, 330 f., 336 f., 341.
 Camel, 255.
 Chiromancy, 25.
 Chronology, 22-24, 84 f., 117 f., 127, 290, 333 f., 344 f. *See* Calendar.
 Climates, 89, 101 f., 316, 339.
 Clouds, 62, 341.
 Commerce, 4, 144, 186, 194, 252.
 Computus, 32 f., 82-88, 113, 124, 291, 330 f., 336 f., 341.
 Constantinople, literary relations with Latin Europe, 147, 159-161, 173-175, 184, 194-222, 244.
 Constellations, figures of, 8, 288, 338-341.
 Copper, 295.
 Cranes, 306, 312, 322, 325 f., 350.
 Creation, 60.
 Crusades, translations during, 130-140, 251 f.
 Cuckoo, 321.
Curia regis, 327-335.
 Digestion, 37, 262, 322.
 Divination, 12, 79, 136 f., 286. *See* Astrology.
 Dogs, 247, 309, 319.
 Doves, 311, 323.
 Dreams, 5, 146, 216-218, 286.
 Ducks, 321.
 Dyes, 30, 281, 295, 297.
 Eagle, 219.
 Earth, 37, 62-64, 100, 266, 293-296; navel of, 32, 339.
 Earthquakes, 37, 39, 95, 209, 341.

- Eclipses, 23, 85, 114-117, 125, 341, 344.
 Eels, 170.
 Elements, 27, 37, 61, 92-96, 251, 266, 292, 295.
 Elephant, 254 f.
 England, science and learning in, 10 f., 13, 15, 20-42, 83-87, 111, 113-129, 166, 168-171, 184, 237-239, 323 f., 328-335, 346-348, 354, 356-376; relations with Italy, 21, 33, 114 f., 148, 166, 168-170, 184-189, 201, 274 f.; with Lorraine, 114, 333-335; with Spain, 10 f., 13, 15, 34, 87, 118-129, 273 f.
 Eras, 22 f., 24, 84 f., 117, 344 f.
 Essence, 48 f., 56-65, 295.
 Exchequer, 156, 327-335.
 Experiment, *see* Observation.
 Falcons, 27 f., 35, 243, 247, 254-256, 261-263, 270, 289, 299-326, 346-355, 362.
 Fish, longevity of, 262 f.
 Flavors, 94.
 France, science and learning in, 8-11, 21 f., 26, 47 f., 55, 68, 71 f., 83-85, 88-92, 96-98, 146-148, 185-188, 213 f., 226, 229 f., 239, 301, 330, 333, 347-349, 356-376.
 Frederick II, science at the court of, 242-326; his experimental habit of mind, 262-264, 289 f., 303-308, 312-326; his relations with Mohammedans, 5, 130, 252 f., 265, 268; his questionnaires, 253, 264-268, 292-294; his treatise on falconry, 262-264, 270, 289, 299-326, 350-352.
 French, mediaeval works in, 113, 140, 254, 301 f., 319, 330, 336 f., 348 f., 351, 355, 363 f.
 Geography, 5, 7, 62-65, 98, 130, 142, 156, 243, 266 f., 294-297.
 Geomancy, 12, 77-79, 283, 286.
 Geometry, 10 f., 15, 21, 24 f., 31, 50 f., 62, 91, 101, 143, 160, 162, 178, 189, 249, 259, 265, 316, 369 f., 374.
 Germany, learning in, 16, 30, 43, 51-53, 69, 84 f., 109, 146, 164, 195-197, 209-213, 221, 226, 237-239, 255, 263, 276, 278, 279, 288, 307 f., 310, 314, 317, 321, 334, 338, 348-351, 353, 371.
 Giraffe, 255, 270.
 Glossaries, 9, 150, 356-376.
 God, 27, 38, 40 f., 60, 99, 107, 266-268, 285, 292 f., 297. *See* Theology.
 Gold, 295 f.
 Grammar, 145, 150, 250 f., 356 f., 360-364, 369 f., 373.
 Greek, acquaintance with, in Middle Ages, 21, 45, 93, 102, 141-154, 172, 230 f., 284; grammars and dictionaries, 150, 199, 202-206, 213, 342; translations from, 5, 25, 53, 68, 91 f., 104 f., 109-112, 141-241, 244, 269, 367, 373-375. *See also* the Index of Proper Names under Aristotle, etc.
 Guinea hen, 306.
 Hawks, 255, 307, 317, 324 f., 346-348, 351-354. *See* Falcons.
 Hebrew, knowledge of, 170, 259, 262, 272, 275, 282, 284; translations from and into, 18, 26, 74, 108, 251, 259, 277, 282, 284.
 Hell, location of, 293, 298.
 Heron, 306, 321, 324.
 Horoscopes, 30, 127, 245-247.
 Horses, care and diseases of, 256.
 Humors, 37, 94, 316.
 Hunting, 256, 290, 308, 318. *See* Falcons, Hawks.
 Hygiene, 247, 250, 254, 257.
 Illuminations and illustrations, 301 f., 305 f., 308-310.
 Immortality, 260, 262, 264, 268 f., 294.
 Incubation, 263, 289, 320, 322.
 Irish, 273, 275.
 Iron, 295 f.
 Italian, mediaeval works in, 242, 245, 349, 352-354.
 Italy, science and learning in, 5, 14 f., 21, 33, 92-96, 110, 114, 131, 138 f., 141-222, 242-326, 348-354, 356, 366, 369, 375; translations from the Greek in, 5, 104, 141-222, 225, 227 f., 235-237, 240 f., 244. *See* Sicily.

- Jews, learned, in England, 23, 115-119, 127; in France, 74, 96, 98; in Italy, 246, 251, 278, 281 f.; in Spain, 7-14, 17 f., 248, 251, 265, 282.
- Language, original, 262, 322.
- Lapidary, 4, 219.
- Latin classics, 28, 38, 41, 65, 86, 93, 96, 98, 103, 141, 151, 184, 200, 284, 357, 370-374.
- Latitude and longitude, mediaeval reckonings, 64.
- Law, Canon, 357, 360, 365, 375; Roman, 145, 208, 250, 357, 360, 375.
- Lead, 295 f.
- Leopards, 254 f.
- Libraries, mediaeval, 6, 8, 165, 221 f., 270 f., 347; of Greek MSS., 154, 159, 161, 163-166, 174, 190, 198, 221 f.
- Lion, 254 f.
- Logic, 15, 36, 144, 214, 223-241, 248, 251, 260, 265, 270, 367, 370, 373. *See* Aristotle in Index of Proper Names.
- Lorraine, studies in, 83, 114, 333-335.
- Lure, 323 f.
- Magic, 19, 286, 288.
- Magnet, 263, 294 f.
- Maps, 243.
- Mathematics, 3, 5-11, 143, 154, 172, 191, 248 f., 253, 259, 270, 333-335. *See* Abacus, Algebra, Arithmetic, Geometry, Trigonometry.
- Matter, eternity of, 265, 285.
- Mechanics, 143, 166, 179-183, 261, 316.
- Medicine, 3 f., 6 f., 14-16, 28, 84, 94, 119, 130-135, 137, 143, 145, 149, 159, 162, 208 f., 222, 244, 250, 256 f., 274, 281 f., 285-287, 289, 316-319, 346, 352, 356 f., 360, 369, 374.
- Menagerie, 254-256.
- Metals, 94, 126, 288, 292, 294 f.
- Meteorology, 37 f., 49, 62-64, 77, 93-96, 128, 143, 159, 163, 168, 209, 225, 244 f., 267, 288, 291-298, 341.
- Mohammedans, 47, 58, 120. *See* Arabs, Frederick II, Spain, Syria.
- Music, 21, 24, 245, 285, 288, 330.
- Nativities, 76 f., 221.
- Necromancy, 19, 246, 286.
- Numerals, 91, 102 f.
- Observation and experiment, 31 f., 39, 143, 159, 168, 170, 244 f., 246, 262-264, 288-290, 303, 305-308, 312-326, 346.
- Ophthalmology, 16, 222, 257.
- Optics, 5, 15, 33, 143, 160, 166, 173, 265, 292.
- Ordeal, 268.
- Oriental literature, 143, 173-176.
- Orpiment, 295.
- Ostrich, 311.
- Paradise, terrestrial, 64 f., 294.
- Parrot, 362.
- Pelican, 311.
- Pharmacy, 132 f., 250, 297, 374 f.
- Philosophy, 3, 7, 12 f., 20, 27 f., 36, 48, 56-66, 88-92, 128 f., 166-168, 245-248, 253, 260, 266, 270, 278 f., 293.
- Physics, 37-39, 57-61, 82, 90, 92-96, 179-183, 225, 367 f.
- Physiognomy, 245, 259, 282, 286 f., 316.
- Planetarium*, 253.
- Plants, 219, 221.
- Platonism, 31, 36, 55, 57, 65 f., 88-93, 103, 166-168.
- Pneumatics, 181-183.
- Provençal, works in, 78, 246, 348.
- Psychology, 37-39.
- Pumice, 297, 361.
- Quadrivium*, 24, 91, 117, 162, 351, 369, 374.
- Questionnaire, 130, 252, 264-268, 292-294.
- Quicksilver, 94, 295 f.
- Rainbow, 62, 341.
- Rationalism, 40, 268.
- Renaissance, Italian, 190, 240 f., 269, 299, 326; of twelfth century, 3, 67, 142-154, *et passim*.
- Rhetoric, 248-251, 374.
- Rome, relations with East, 146, 195-197, 219-221.

- Salt waters, 209, 266 f., 293 f.
 Salts, 281, 295.
 Science, religious opposition to, 98, 162, 171, 192 f. *See* Arabs, Greek, Observation, Translations, and the several sciences.
Scriptorium, 361.
 Sea, 37, 100, 209, 293, 296.
 Senses, 37.
 Seven, mystical virtues of, 288.
 Sicily, cosmopolitan culture of, 5, 141 f., 155-157, 243; as a centre of learning and translation, 5, 21, 95, 143, 153-193, 222, 236 f., 242-326, 348-352; under Roger II, 142, 156, 183, 187 f., 243, 308, 348-350; under William I and II, 142, 160-189, 243 f.; under Frederick II, 5, 242-326, 348-350; under Manfred, 269-271, 302-305, 309 f.
 Silver, 295 f.
 Spain, science in, 3-19, 34, 43-82, 96, 104, 108, 110, 118-129, 137, 229, 238, 248, 251, 264 f., 273, 277-279, 286, 323.
 Spatulamancy, 79, 286.
 Sphere, 15, 29, 31, 51, 98-103, 273, 277, 282, 288, 291, 296.
 Springs, 37, 96, 263, 266 f., 292-297.
 Stenography, 196.
 Stones, virtues of, 219, 294.
 Stork, 362.
 Sulphur, 94, 96, 292, 295-298.
 Syria, relations with Latin Europe, 4, 10, 26, 31 ff., 130-140, 246, 253, 264, 281, 311, 320, 323, 342-345.
 Tables, astronomical, 7, 9 f., 16 f., 22 f., 73, 84, 91, 96-98, 114-119, 122 f., 125, 158, 270, 288, 291, 295 f., 338, 344.
 Text-books, 356-376.
 Theology, 144-148, 153, 195-197, 201 f., 207, 209-215, 265, 273, 357, 360, 375 f.
 Thunder, 37, 341.
 Tides, 37 f., 89, 95, 291.
 Tin, 295.
 Tournaments, 365.
 Translations, from the Arabic, 3-19, 22-25, 30, 43-47, 49-51, 56, 68-82, 92-108, 110 f., 119-123, 131-140, 143, 171, 184, 219, 229, 238, 244 f., 247, 260 f., 269-274, 277-279, 314-320, 350, 367-369, 374 f.; from the Greek, 5 f., 25, 53, 68, 91 f., 104 f., 109-112, 141-241, 244, 269, 367, 373-375; methods of translators, 13, 18, 137, 150-152, 162 f., 167 f., 172, 181, 219, 230-235, 241-283.
 Trigonometry, 11, 22, 123.
Trivium, 91, 356, 369, 372-374.
 Universals, 36.
 Universities, 235, 239, 250 f., 257, 263, 273, 284, 356-376.
 Vacuum, 39, 182.
 Vine, 209, 267, 293.
 Volcanoes, 159, 168, 244, 267, 292, 294, 296-298, 341.
 Vultures, 263, 314, 321 f.
 Winds, 37, 209, 267, 291 f., 294, 296 f., 341 f.
Zig (asig, esich), 22 f., 73, 123.
 Zoölogy, 16, 254-256, 261, 277-279, 300-326, 346-355. *See* Animals, Birds, Dogs, Falcons.

INDEX OF PROPER NAMES

- A., canon of Valence, 213.
 Aachen, 334.
 'Abdalabenus Zolemanus,' 79.
 Abelard, 32, 226, 236, 286.
 Abelson, P., 356, 358, 371.
 Abenbêder, 7.
 'Ablaudius Babilonicus,' 79.
 Abrachis, 89, 109, 164. *See* Hipparchus.
 Abraham, 192.
 Abraham de Balmes, 238.
 Abraham ben Chija, *see* Savasorda.
 Abraham ben (ibn) Ezra, 10, 17, 18, 74, 96, 127 f., 131.
 Absalom of St. Victor, 367.
 Abubacer (ibn Tofail), 7.
 Abulfaragius, 246, 247.
 Abul-Kasim, 7.
 Abuteus, *see* Andrew.
 Achmet, *see* Ahmed.
 Adam, chanter of Cremona, 250, 257.
 Adam des Esgles, 351.
 Adam du Petit-pont, 226.
 Adelard of Bath, 4, 9, 10, 20-42, 43, 44, 48, 50, 53, 66, 74, 82, 83, 89, 90, 91, 92, 93, 98, 113, 114, 118, 119, 120, 123, 130, 162, 179, 184, 185, 187, 283, 329, 333, 346 ff., 352, 354.
 Adelard of Blandinium, 34.
 Adelbold of Utrecht, 334.
 Adrian IV, pope, 169 f., 220.
 Aeneas, 205.
 Aeneid, 365, 372.
 Afiah, ibn, 7.
 Africa, 4, 227, 249.
 Ahmed ben Sirin, 5, 146, 216 ff.
 Ailred of Rievaulx, 185.
 Alain de Lille, 359.
 Alardus, *see* Adelard.
 Alatrabulucus, 77.
 Albatene, *see* Battani.
 Alberic, Lotharingian clerk, 331.
 Albericus (of Rheims?), 210 f., 213, 214.
 Albericus Trium Fontium, 85, 326.
 Albert of Behaim, 258.
 Albert, consul of Pisa, 214.
 Albert of Saxony, 239.
 Alberto Gallo, 274.
 Albertus Magnus, 30, 69, 164, 237, 238, 239, 255, 263, 278, 279, 288, 307 f., 310, 314, 317, 338, 348 ff., 353, 354.
 Albigenian war, 359.
 Albold of St. Edmund's, 187.
 Albusasar, Albumazar, 14, 44, 45, 51, 54, 55, 56, 58, 61, 66, 76, 77, 80, 98, 120, 288. *See* Ma'ashar.
 Alcabitius, 98.
 Alchandrinus, 290.
 Aldebrandino of Siena, 254.
 Alduinus, 133.
 Aleppo, 281.
 Alexander, astronomer, 342.
 Alexander the Great, 137, 220, 254, 286.
 Alexander of Hales, 359.
 Alexander medicus Grecus, 352.
 Alexander Neckam, 41, 128, 129, 239, 357-376.
 Alexander III, pope, 138, 169, 171, 195, 210, 214, 216, 221, 365, 366, 370, 375.
 'Alexander prepositus,' 203-206.
 Alexander Telese, 185, 186.
 Alexander of Tralles, 369, 375.
 Alexander of Villedieu, 370.
 Alexandre, C., 173, 174.
 Alexius I (Comnenus), Byzantine emperor, 195.
 Alfano, bishop of Salerno, 142.
 Alfonsine *Tables*, 16 f.
 Alfonso I, king of Aragon, 118.
 Alfonso VII, king of Castile, 70.
 Alfonso X (the Wise), king of Castile, 12 f., 16 ff., 110.
 Alfonso of Toledo, 15.
 Alfraganus, 369, 374. *See* Fargani.
 Alfred the Englishman, 15 f., 28. *See*

- Alfred of Sareshel (Sereshel), 94, 125, 128 f., 225, 367.
 Algazel, 13.
 Alheacib Alcuñ, 76, 80.
 Ali, abu, 76, 80, 121.
 Ali-ben-Abbas, 4, 130, 131-135, 374.
 Ali ibn Ridhwan, 110.
 Allatius, L., 215.
 Allshorn, L., 299.
 Alpetragius, 273. *See* Bitrogi, al-
 Aluredus Anglicus, 28. *See* Alfred of Sareshel.
 Amador de los Rios, J., 17.
 Amalfi, 141.
 Amari, M., 155, 156, 157, 171, 174, 242, 243, 246, 248, 252, 260, 264, 271, 292.
 Amaury I, king of Jerusalem, 136.
 Ambrose, St., 98, 284.
 Ambrose, bishop of Bergamo, 199.
Amphitritis sinus, 63, 64, 65.
 Anastasius, monk of Mont-Saint-Michel, 144.
 Ancona, march of, 292.
 Andrew (Abuteus), 18, 274, 283.
 Andronicus Callistus, 177.
 Andronicus Kamateros, 196.
 Andronicus Palaeologus, 177 f.
 Angers, 125.
 Anselm of Havelberg, 144, 146, 195, 196, 197, 198, 206, 209, 212 f., 227, 228.
 Antioch, 4, 26, 130, 131-135, 137, 138, 246.
 Antonio Godi, 258.
 Antonio, N., 119.
 Anunbarhis (?), 79.
 Anytus, 167.
 'Apodoxim,' 370, 373.
 Apollonius, 66, 80.
 Apomasar, 221.
 Apuleius, 65, 370, 373.
 Apulia, 155, 160, 188, 236, 237, 280, 289, 311 f., 324, 353.
 Aquila, 352.
 Arabia, 227, 320, 323.
 Arabs, 3-140, *et passim*.
 Aratus, 65, 338.
 Archer, T. A., 120.
 Archibernardus, 352 f.
 Archimedes, 15, 66.
Argolica bibliotheca, 170.
 Arin, 32, 62, 63, 64, 97, 98, 288.
 Aristippus Larissæus, 167.
 Aristippus of Sicily, 53. *See* Henricus Aristippus.
 Aristotle, 3, 5, 15, 16, 18, 36, 38 f., 55, 61 f., 67, 69, 92, 94 ff., 99, 106, 110, 152, 153, 183 f., 223, 244, 261 f., 265, 277, 283 f., 313, 314 f.; *Categories*, 223, 226, 231, 232, 233, 373; *De anima*, 62, 66, 128, 129, 149, 245, 251, 261, 278, 318, 367, 373; *De animalibus*, 16, 218, 245, 261, 277 f., 283 f., 314, 321; *De caelo*, 128, 149, 162, 183, 191, 225, 261, 278 f., 282, 284; *De colore caeli*, 128; *De generatione animalium*, 314; *De generatione et corruptione*, 66, 128, 129, 367, 368, 373; *De interpretatione*, 223, 226, 231, 232, 373; *De partibus animalium*, 314; *De somno et vigilia*, 128; *De vita et morte*, 128; *Economics*, 149; *Elenchi*, 144, 225-227, 232, 233, 238, 373; *Ethics*, 16, 128, 149, 223, 248, 261, 279, 284, 318; *Historia animalium*, *see* *De animalibus*; *Liber animalium*, 314; *Logic*, 66, 143, 152, 237, 261, and *see* *New Logic* and the several works; *Metaphysics*, 18, 96, 128, 129, 149, 223 f., 260, 279, 367, 368, 370, 373; *Meteorology*, 62, 66, 95, 128, 143, 163, 168, 183, 209, 224, 225, 261, 284, 292, 298; *New Logic*, 144, 148, 206, 212, 225-228, 231 ff., 235, 367; *On Animals*, *see* *De animalibus*; *Organum*, 226; *Parva naturalia*, 128, 149, 223; *Periermenias*, *see* *De interpretatione*; *Physics*, 38 f., 66, 92, 93 f., 128, 149, 223, 224, 225, 279; *Poetics*, 16; *Politics*, 149, 223; *Posterior Analytics*, 15, 91, 144, 149, 166, 183, 184, 223-241, 373; *Predicamenta*, 226; *Prior Analytics*, 144, 225, 226, 227, 231, 233, 373; *Problemata*, 96; *Rhetoric*, 16, 69, 149, 223, 248, 261, 318; *Topica*, 93, 144, 225, 227, 231, 232, 238.
 Aristotle, Pseudo-, 80, 269, 286 f.; *De elementis*, 94; *De pomis*, 269; *De vegetabilibus*, 128; *Liber de 255 Indorum*

- voluminibus*, 74 ff.; *Magna moralia*, 261, 269; *Mechanics*, 261, 316 f.; *Physiognomy*, 286; *Secretum secretorum*, 14, 131, 137-140, 247, 261, 287; *Theology*, 130.
 'Armenia, insula de,' 323.
 Arndt, H. M., 262, 269, 270, 303.
 Arnold the Catalan, 251.
 Arsenii, A., 196.
 Arzachel, *see* Zarkali.
 Aschettinus, 160.
 Ashraf, al-, sultan of Damascus, 253.
 Asia Minor, 216, 264.
 Astalius, 58.
 Astorre Manfredi of Faenza, 303.
 Athanasius, 207, 211.
 Athens, 79.
 Atir, ibn-al-, 156, 188.
 Atlas, 286, 339, 340, 342.
 Atto, bishop of Vich, 8.
 Aubert, H., 302.
 Augusteion, 217.
 Augustine, 65, 98, 273, 284, 338, 340, 343.
 Austria, 210.
 Auvray, L., 138, 275.
 Avempace of Saragossa, 7.
 Avendehut, *see* John David.
 Avenzoar, 7.
 Averroës, 5, 7, 15, 16, 245, 251, 260, 261, 278, 279, 284, 285.
 Aversa, 186.
 Avicebron, 7, 13.
 Avicenna, 13, 18, 245, 256, 260, 261, 314, 368.
 Azogo, 77.
 Babylon, 338.
 Babylonia, 246, 350, 364.
 Bäumer, A., 250.
 Baeumker, C., 13, 83, 90, 128, 129, 142, 223, 225, 236, 251, 270, 356, 367, 373 f.
 Bagdad, 246.
 Balaam, 258.
 Baldach, 258.
 Bale, J., 26, 124, 125, 333.
 Ballesteros y Beretta, A., 6, 16.
 Bandini, A. M., 33, 172, 241.
 Barach, C. S., 128.
 Barbaranus the Saracen, 281.
 Barcelona, 8, 9, 10, 11, 68.
 Bardenhewer, O., 17, 89.
 Bari, 325.
 Baronijs, C., 212, 214.
 Bartholomaeis, V. de, 242.
 Bartholomew Anglicus, 278.
 Bartholomew, bishop of Girgenti, 187 f.
 Bartholomew of Messina, 269.
 Bartholomew of Parma, 287.
 Basil of Achrida, 195, 196.
 Basil the admiral, 171.
 Basil the Great, 145, 151, 153, 186, 207, 210, 211, 215.
 Bateson, M., 150.
 Bath, 33, 34.
 Batiffol, P., 155, 173.
 Battani, al-, 11, 44, 54, 64, 66, 82, 88, 97, 98, 104, 122, 123.
 Baudri of Dol, 330.
 Baumgartner, M., 13, 20, 36, 39, 90, 92.
 Baur, C., 13, 207, 239, 279, 344.
 Bayeux, 330.
 Beatrice of Provence, Countess, 254.
 Bec, 186, 187.
 Bede, 3, 52, 83, 84, 85, 89, 113, 273, 284, 291, 330, 331, 336, 337, 341, 343.
 Bedfordshire, 329.
 Beer, R., 8.
 Beissel, S., 301.
 Bekri, al-, 7.
 'Bene medico,' 257.
 Benedict of Peterborough, 128, 189.
 Benevento, 143, 147, 160, 168, 170.
 Benjamin of Tudela, 7.
 Berachya, 26.
 Berengarius, 53.
 Bergamo, 145, 197 ff.
 Berger, E., 139.
 Berkshire, 328 f.
 Berlière, U., 20.
 Bernard of Pavia, 366, 367.
 Bernard of Tours, 52. *See* Bernard Silvester.
 Bernard Silvester, 89, 135, 136.
 'Bernard Sylvester,' 135 ff.
 Bernard, E., 35, 358.
 Bernardus Cremonensis, 209.

- Bernelinus, 334.
 Bertaux, E., 305.
 Berthelot, M., 30.
 Bertoni, G., 242.
 Bertrada, 21.
 Besançon, 85.
 Besta, E., 187, 319.
 Bethel, 32.
 Bethmann, L. C., 300, 327, 352.
 Béziers, 10, 47, 48, 55, 65, 68, 96, 120.
 Bezold, C., 343.
 Biedermann, C., 346.
 Biehringer, F. J., 261, 299, 315.
 Bilbais, 136.
 Binz, G., 179.
 Birkenmajer, A., 17, 31, 50, 104, 108, 111, 127, 131, 165, 167, 183, 238, 279, 291.
 Bithynia, 216, 217.
 Bitrogi, al-, 7, 16, 245, 273, 277, 278, 282.
 Björnbo, A. A., 22, 25, 44, 47, 50, 51, 56, 68, 91, 109, 111, 158, 171, 179.
 Bloch, I., 375.
 Blochet, E., 252.
 Boccaccio, 154.
 Boethius, 22, 36, 38, 46, 59, 65, 66, 84, 91, 98, 134, 145, 151, 162, 181, 189, 192, 193, 211, 223, 228, 229-238, 239, 240, 241, 284, 288, 373, 374.
 Boll, F., 17, 110, 222, 285, 288.
 Bologna, 249, 250, 251, 269, 273, 274, 276, 277, 356.
 Boncompagni, B., 11, 14, 20, 22, 33, 51, 85, 105, 107, 108, 171, 238, 257, 258, 275.
 Bonilla y San Martin, A., 6, 13, 16, 127.
 Bordonaro, 170.
 Brandan, St., 298.
 Brandt, S., 228, 233.
 Bréhier, L., 345.
 Brescia, 246.
 Bresslau, H., 155, 244.
 Brindisi, 172, 186.
 Bristol, 29.
 Brithferth, 84.
 Brockelmann, C., 6, 104.
 Brown, H. F., 198.
 Brown, J. W., 19, 138, 222, 261, 272 f., 274, 276, 279, 280, 282, 283, 285.
 Bubnov, N., 9, 22, 25, 51, 52, 53, 56, 83, 84, 91, 334.
 Büdinger, M. M., 8.
 Bülow, G., 13.
 'Bulchasse', 320.
 Buonamici, F., 206, 209.
 Burcardus, 375.
 Burckhardt, J., 299.
 Burgundio of Pisa, 131, 144, 145 f., 148, 149, 151 f., 184 f., 194, 195, 197, 206-209, 222, 227, 231, 232, 235 f.
 Burkhard, C., 207.
 Burnam, J. M., 8.
 Busquet, R., 308.
 Byblos, 139.
 Byzantine Empire, 5, 130, 141, 146, 165, 244. *See* Constantinople.
 Caciareda, 218, 220.
 Caen, 330.
 Caesar, 103, 200, 205.
 Cairo, 136.
 Calabria, 155, 175, 281, 353.
 Cambrai, 333.
 Camerarius, J., 300.
 Campania, 249.
 Cantor, M., 5, 33, 35, 52, 83, 85, 104, 178, 248, 275, 334.
 Capasso, B., 197, 199, 269.
 Capelle, W., 62.
 Capitanata, 312, 325.
 Cappadocia, 215.
 Capua, 259, 305.
 Capuan school, 248.
 'Caribdis', 38.
 Carinthia, 53, 54, 212.
 Carlez, J., 330.
 Cartellieri, O., 269.
 Cashel, 272, 274 f.
 Casiri, M., 216.
 Caspar, E., 4, 21, 155, 171, 174, 178.
Caspian portus, 63.
 Castrogiovanni, 159.
 Casule, 155.
 Catania, 159, 160, 169, 170.
 Cato, 139, 218, 372.
 Caucasus, 63.
Cave of Treasure, 343.

- Censorinus, 31.
 Central Asia, 254.
 Cerbanus, 146.
 Ceseno, 256.
 Ceuta, 264, 292.
 Chalandon, F., 21, 155, 160, 171, 173, 185, 187, 188, 189, 195, 196, 203, 216, 220.
 Chalcidius, 31, 62, 88, 151. *See* Plato.
 Chaldeans, 97, 124, 218.
 Charlemagne, 334.
 Charles of Anjou, 5, 270, 308.
 Chartres, 36, 43, 55, 57, 65, 82, 89-92, 277.
 Chase, W. J., 372.
 Chastb, el-, 76.
 Chasles, M., 33, 91.
 Chatelain, E., 356.
 'Chaycham,' 320.
 Chester, 120.
 Cheyne, T. K., 337.
 Chosroës, 264.
 Christian, archbishop of Mainz, 221.
 Chrysippus, 373.
 Chrysolanus, *see* Peter Chrysolanus.
 Chrysoloras, 150, 240.
 Chrysostom, 145, 146, 149, 152, 153, 185, 202, 207, 208, 209, 215, 371.
 Ciampoli, D., 319, 351.
 Cicero, 41, 62, 65 f., 75, 88, 103, 151, 193, 215, 284, 371, 372, 373.
 Cid, the, 4.
 Cilicia, 33.
 Cillenius Mercurius, 77.
 Cincius, L., 86.
 'Cingius,' 86.
 Cirencester, 360, 365.
 Clark, C. U., 8.
 Claudian, 159, 370, 371.
 Clerval, A., 44, 47, 52, 55, 89, 90, 91, 137, 226, 277, 334.
 Colchester, 329.
 Colin, G., 7.
 Coluccio Salutati, 157, 164, 167.
 Columbus, Christopher, 4.
 Comrie, J. D., 272.
 Conrad Heingarter, 111.
 Conrad of Hirschau, 371.
 Constance, 212.
 Constantine the African, 4, 39, 92, 132, 374.
 Constantine I, Roman emperor, 103.
 Constantinople, 6, 53, 54, 131, 141, 143, 144-150, 159, 160 f., 164 f., 168, 174, 178, 184, 191, 194-222, *passim*, 227.
 Continuator Theophanis, 174.
 Corazzini, G. O., 240.
 Cordova, 6, 7, 10, 19, 22, 123, 372.
Corpus Juris Civilis, 151, 375.
 Correns, P., 13.
 Cosmas, 352.
 Cosmo de' Medici, 241.
 Costa ben Luca, 33.
 Cousin, V., 136, 226.
 Coxe, H. O., 84, 168, 175, 237, 291.
 Craster, H. H. E., 75, 89.
 Cremona, 255, 324.
 Crete, 204.
 Crispus, 373. *See* Sallust.
 Croesus, 211.
 Crusades, 130-140, 194, 251 f.; Fourth Crusade, 165, 196.
 Cumont, F., 135, 219, 220, 221, 338.
 Curtze, M., 11, 24, 25.
 Cusa, S., 171, 173.
 Cyril of Alexandria, 211.
 Dacia, 203, 316.
 'Dancus,' King, 317, 349.
 Danegeld, 332.
 Daniel, 192.
 Daniel of Cremona, 319 f., 351.
 Daniel of Morley, 15, 126 f.
 Dante, 268, 269, 279.
 Daude de Pradas, 317, 348, 352.
 Dausend, P. H., 152, 206, 207.
 David, C. W., 186.
 Davis, H. W. C., 328, 329, 331.
 Dee, J., 33, 179.
 Delaville Le Roulx, J., 139.
 Delehaye, H., 212.
 Delisle, L., 8, 31, 45, 50, 132, 147, 167, 224, 232, 238, 263, 276, 287, 331, 369.
 Demetrius of Lampe, 216.
 Denifle, H., 250, 251, 261 f., 356, 367, 370.

- De Wulf, M., 20, 90.
 Diels, H., 15, 207, 208, 209, 374.
Digest, the, 88, 145, 209, 375.
 Diogenes Laertius, 142, 143, 166, 190.
 Dionysius the Areopagite, 96, 147, 151, 153.
 Dionysius Exiguus, 85.
 Dioscorides, 6, 132, 306, 369, 375.
 Dittmeyer, L., 278.
 Djemal-Edin, 270.
Dodi Ve-Nechdi, 26, 41.
 Dombrowski, E., 195.
 Domenico Bassedelli, 198.
 Dominicus Gondisalvi, 9, 13, 279, 283.
 Dominicus, Master, 248.
 Donatus, 139, 370, 372, 373.
 Don Quixote, 4.
 Dorotheus, 286.
 Doxopater, *see* Nilus Doxopatres.
 Dräseke, J., 195, 196.
 Drexl, F. X., 216.
 Dreyer, J. L. E., 16, 88.
 Drogo, 77, 78.
 Druvius, 66.
 Du Boulay, C., 360.
 Du Cange, C., 217, 365.
 Dugat, G., 374.
 Duhem, P., 7, 16, 37, 38, 41, 45, 82 f., 88, 89, 90, 92, 96, 97, 98, 100, 125, 137, 277, 279, 283, 352.
 Dunstable, 359.
 Dunstan, St., 34.
 Durham, 273.
 Dute, A., 334.
 Dyroff, K., 45.
 Eadmer, 187.
 'Ebdelmessie,' 109 f.
 Ebert, F. A., 106.
 'Edmundus Saracenus,' 25.
 Edrisi, 5, 142, 156, 190, 243.
 Edward the Confessor, king of England, 334.
 Egidi, P., 252.
 Egidio di Aquino, 353 f.
 Egidio Colonna, 239.
 Egidius Corboliensis, 368.
 Egidius de Thebaldis of Parma, 17, 110.
 Egypt, 5, 63, 75, 136, 227, 252, 253, 254, 263, 264, 265, 286, 289, 311, 324, 352.
 Ehrle, F., 165, 225, 247.
 Elias, Friar, 260, 281.
 Eneström, G., 249, 275, 327.
 Engdahl, R., 196, 215.
 England, 10, 20-42, 84, 112, 113-129, 168 ff., 186 f., 245, 273, 274, 275, 316, 323, 346 ff., 365.
 Enna, 159.
 Enzo, falconer of Frederick II, 324.
 Enzo, son of Frederick II, 319 f., 351 f.
 Epicureans, 101, 103, 265, 268.
 Eratosthenes, 51, 66.
 Erbach-Fürstenau, Graf zu, 301, 305.
 Erythraean Sibyl, 143, 153, 165, 173 ff., 222.
 Esposito, M., 360.
 Essex, 328 f., 332.
 Etna, 150, 159, 168, 191, 267, 294, 296 f., 298, 341.
 Euclid, 5, 18, 53, 66, 67, 121, 123, 153, 162, 189, 270, 283, 369, 374; *Catoptrics*, 33, 143, 160, 171, 178 f., 191, 244; *Data*, 143, 160, 171, 178 f., 191, 244; *Elements*, 10, 15, 24 f., 29, 34, 41, 42, 50, 51, 162, 178, 189; *Optics*, 33, 143, 160, 166, 171, 176, 178 f., 191, 244.
 Eugene, admiral under Roger I of Sicily, 171.
 Eugene the admiral, 166. *See*
 Eugene the Emir, 5, 142, 143, 150, 160, 163.
 Eugene of Palermo, 5, 152, 171-176, 190, 191. *See* Eugene the Emir.
 Eugene III, pope, 151, 207, 211.
 Eustathius, 178.
 Eustratius of Nicaea, 195.
 'Evax rex Arabum,' 4.
 Evrard de Béthune, 150, 370.
 Eyton, R. W., 328.
 Ezzelino da Romano, 258.
 Fabre, P., 318.
 Fabricius, nephew of Leo Tuscus, 215, 218.

- Fabricius, J. A., 178, 213.
 Fabroni, A., 206, 213.
 Faenza, 318.
 Falco, G., 142.
 Farabi, al-, 13, 15.
 Faral, E., 358.
 Fargani, al-, 14, 18, 68, 73 f., 82, 88, 104, 127, 288, 369.
 Farrer, W., 22, 328.
 Fécamp, 330.
 Ferdinand III, king of Castile, 359.
 Ferretti, G., 251.
 Ferretto, A., 139.
 Fiorentino, 259.
 Firmicus Maternus, 127.
 Fita, F., 127.
 Fitting, H., 209.
 Florence, 258.
 Florentines, 240.
 Florius de Camerata, 189.
 Flügel, G., 74.
 Fobes, F. H., 168.
 Foerster, R., 14, 137, 269, 286, 287.
 Foligno, 325.
 Font y Sagué, N., 6.
 Forlì, 258.
Fortunatae insulae, 63.
 Fournier, P., 144, 213.
 France, 8-12, 17 f., 21 f., 26, 41, 47 f., 55, 67, 72, 78, 85, 88-92, 96 ff., 113, 125, 127, 146 ff., 185-188, 213 f., 226, 229, 237, 239, 286, 301, 323, 330, 333, 347 ff., 356-376.
 Francesco Pipini, 275, 276.
 Francis of Assisi, 280.
 Franco of Liège, 334.
 Frederick I (Barbarossa), emperor, 196, 207, 210, 211, 212, 221, 222, 254.
 Frederick II, emperor, 5, 108, 130, 142, 154, 156, 173, 174, 190, 242-324, 346, 348-352, 354.
 Fredericus Naghel, 167.
 Freeman, E. A., 155, 334.
 Friedberg, E., 366.
 Friedlein, G., 102.
 Fuchs, B. A., 288.
 Fulgentius, 371.
 Furiani, G., 13.
 G., Master, of Montpellier, 352.
 Gabirol, ibn, *see* Avicbron.
 Gaeta, 184, 185.
 Galen, 3, 14, 15, 18, 37, 39, 66, 67, 92, 98, 145, 153, 369, 374; *De compendiositate pulsus*, 208; *De crisisibus*, 208; *De differentiis febrium*, 208; *De differentiis pulsuum*, 208; *De locis affectis*, 208; *De temperamentis*, 208; *De sanitate tuenda*, 208; *De virtutibus naturalibus*, 208; *Tegni*, 14, 151, 369, 374; *Therapeutica*, 208.
 Galippus, 15.
 Ganges, 63.
 Ganszyniec, R., 134, 219.
 Gap, 146.
 García del Real, E., 6.
 Garizim, 32.
 Garland, *see* John of Garland.
 Garufi, C. A., 21, 156, 173, 185, 249.
 Gatriph, *see* Yatrib.
 Gattola, E., 186.
 Gauco Angligena, 13, 127.
 Gaul, 345.
 Gaul, L., 167.
 Gazzali, al-, 13.
 Geminus, 95.
 Genoa, 139.
 Geoffrey of Winchester, 330, 333.
Geoponica, 145, 153, 209.
 George Cedrenus, 174.
 George Cerameus, 176 ff.
 George of Corfu, 212.
 George of Gallipoli, 173.
 George Trapezuntius, 157.
 Gerald, bishop of Valence, 138.
 Gerard of Cremona, 9, 10, 14 f., 17, 19, 24, 43, 44, 50, 51, 57, 68, 95, 104-108, 127, 157, 161, 162 ff., 178, 219, 224, 235, 238, 254.
 Gerard of Sabionetta, 257.
 Gerardus falconarius, 351.
 Géraud, H., 358.
 Gerbert of Aurillac, 8 f., 19, 22, 51, 53, 83, 91, 115, 286.
 Gerland, 84, 85 f., 87, 91, 113, 124, 291, 329, 330, 331, 336, 337.
 Germain, A., 356.

- Germanicus, 288.
 Germany, 146, 211, 244, 254, 255, 276, 297, 353.
 Geroud d'Abbeville, 167.
 Gervase of Tilbury, 32, 188, 343.
 Geyer, B., 213, 223, 226, 227, 229, 231, 232, 236, 241, 260.
 Ghellinck, J., 146, 207.
 'Gibertus interpres imperii,' 197.
 Giesebrecht, W. von, 199, 212.
 Gilbert, 330.
 Gilbert Crispin, abbot of Westminster, 331.
 Gilbert the Englishman, 352.
 Gilbert Foliot, 124.
 Gilbert de la Porrée, 148, 150, 211, 213, 226.
 Giles of Corbeil, 368.
 Ginsburg, J., 17.
 Giordano Ruffo, 256.
 Giraldu Cambrensis, 170, 188.
 'Girosius Hyspanus,' 352.
 Glastonbury, 330.
 Glycas, 178.
 Götz, G., 133, 150, 213.
 Götz, A., 343.
 Gollancz, H., 26, 38.
 Gorgias, 167.
 Govi, G., 152, 171.
 Grabmann, M., 16, 90, 92, 147, 207, 213, 223, 225, 226, 228, 232, 236, 239, 251, 260, 261, 262, 269, 277, 278, 279, 284, 317, 318, 356, 367, 368.
 Gradenigo, G., 144, 213.
 Graetz, H., 17.
 Gratian, 227, 375.
 Grauert, H., 19.
 Great Caliph, the, 245.
 Great Khan, the, 320, 326.
 Greece, 21.
 Greek Empire, *see* Byzantine Empire.
 Greenland, 316.
 Gregory the Great, 98, 151, 202.
 Gregory Nazianzen, 142, 143, 166, 210, 211.
 Gregory IX, pope, 135, 138, 268, 272, 274, 275, 278, 284, 366, 368.
 Gregory of Tours, 338, 345.
 Grentemaisnil, house of, 185.
 Grosseto, 258.
 Guarino of Verona, 240.
 Gubbio, 325.
 Güdemann, M., 252, 284.
 Günther, S., 5, 249, 295.
 'Guicennas Teotonicus,' 256.
 Guido Aretino, 288.
 Guido Bonatti, 257 f.
 Guido of Montefeltro, 257.
 Guido de Vere, 137, 138.
 Guillelmus, *see* William.
 Gundissalinus, *see* Dominicus Gondisalvi.
 Gustafsson, F., 199 f.
 Gutiérrez del Caño, M., 302.
 Habel, E., 358, 359.
 Hadrian IV, pope, 169 f., 220.
 Haeser, H., 369, 374.
 Hali, 11, 14.
 Ham, 343.
 Hamilton, G. L., 113, 336, 372.
 Hammer-Jensen, I., 168.
 Hampe, K., 242, 268, 269, 299.
 Hanauer, G., 248.
 Hanifi, al-, 253.
 Hardy, T. D., 169, 333.
 Harold, king of England, 347.
 Harris, J. R., 174.
 Harting, J. E., 346.
 Hartmann, F., 94, 132.
 Hartwig, O., 155, 156, 166, 169, 171, 174, 247, 271.
 Hase, C. B., 178.
 Hauber, A., 263.
 Haupt, H., 221.
 Hauréau, J. B., 20, 29, 38, 55, 89, 90, 128, 136, 199 f., 201, 279, 358, 359, 360, 367, 368.
 Heckel, O. von, 156.
 Hegesippus, 373.
 Heiberg, J. L., 25: 47, 56, 109, 142, 155, 158, 160, 162, 163, 164, 165, 170, 171, 178, 179, 181, 225.
 Heinemann, O. von, 106.
 Heiric of Auxerre, 83, 84.
 Helperic, 83, 85, 113, 291, 330, 336, 337.
See Heiric.

- Henricus Aristippus, 53, 142 f., 150, 152, 159-163, 165-172, 179, 181, 182, 183, 190, 191, 225, 236.
 Henry of Avranches, 276, 316.
 Henry Bate, 111.
 Henry, archbishop of Benevento, 195 f.
 Henry of Blois, 29.
 Henry of Cologne, 279.
 Henry VI, emperor, 208.
 Henry I, king of England, 20, 26, 27, 119, 328, 332, 333, 346, 348.
 Henry II, king of England, 28 f., 34, 35, 41, 169, 170, 188, 189, 317, 328, 332, 348.
 Henry III, king of England, 255, 274.
 Henry, patriarch of Grado, 196.
 Henry, C., 35.
 Heraclides of Pontus, 88, 89.
 Herbert of Braose, 187.
 Herbert of Middlesex, 187.
 Hercules, cave of, 19.
 Hereford, 124 f.
 Hergenröther, J., 195, 196, 213, 214.
 Heriger of Lobbes, 334.
 Hermann of Carinthia, 9, 11 f., 30, 33, 35, 43-66, 67, 68, 82, 89, 90, 91, 96, 104, 120, 121, 122.
 Hermann the Dalmatian, *see* Hermann of Carinthia.
 Hermann the German, 15, 16, 43.
 'Hermannus,' 53 f., 159, 161.
 Hermannus Alemannus, *see* Hermann the German.
 Hermannus Contractus, 43, 52, 53, 115, 162.
 Hermes Trismegistus, 30, 51, 57, 58, 61, 66, 79, 80, 220, 270, 288.
 Hero of Alexandria, 39, 143, 153, 160, 181 ff., 189, 244.
 Hertfordshire, 329.
 Hervieux, L., 360.
 Hesiod, 65.
 Heyd, W. von, 198.
 Hierocles, 269.
 Hilarius Pictaviensis, 211, 212.
 Hilka, A., 147.
 Hipparchus, 62, 66, 88, 89, 109, 164.
 Hippocrates, 3, 5, 15, 18, 66, 67, 88, 94, 98, 145, 151, 208, 218, 316, 369, 374.
 Hocedez, E., 152.
 Hönger, F., 250.
 Hofmeister, A., 55, 142, 213, 223, 226, 228, 230, 231, 236.
 Holder-Egger, O., 173, 174, 276.
Homero-centones, 200.
 Honein ben Ishak, 374.
 Honorius of Autun, 338.
 Honorius III, pope, 138, 274, 282.
 Horace, 28, 38, 41, 200, 371, 372.
 Horna, K., 173.
 Huart, M. d', 202.
 Huber, M., 142.
 Huemer, J., 371.
 Huesca, 118.
 Hugh de Bocland, 328 f., 332.
 Hugh, Master, 239.
 Hugh, cardinal priest of St. Sabina, 139.
 Hugh of St. Victor, 338.
 Hugh of Santalla, *see* Hugo Sanctallensis.
 Hugh of Trimberg, 371.
 Hugo Eterianus, 131, 146, 196, 197, 210, 213-218.
 Hugo Falcandus, 156, 160, 188.
 Hugo Sanctallensis, 9, 12, 33, 67-81.
 Hugutio, 150, 251.
 Huillard-Bréholles, J. L. A., 242, 247, 248, 249, 250, 252, 253, 255, 256, 257, 261, 268, 269, 270, 279, 284, 299, 300, 324.
 Hultsch, F., 178.
 Hungary, 146.
 Hurter, H., 195.
 Hyginus, 83, 91, 338, 341.
 Hypsikles, 91.
 Iberi, 205.
 Iceland, 316. *See* *Ysland*.
 Illyricum, 210.
 India, 63, 97, 267, 290, 306.
 Innocent II, pope, 169.
 Innocent III, pope, 276.
 Innocent IV, pope, 139, 276.
 'Ioannes Ocreatus,' *see* Ocreatus.
 Ioanton, Ioathon, 286, 341-344.
Iohannicius, *see* Johannitius.
 'Iorma Babilonicus,' 66.
 Irak, 264.

- Isaac, physician, 374.
 Isaac ibn Sid, 17.
 Isabel de Dampierre, 301.
 Isaiah, 151.
 Isidore of Seville, 3, 83, 251, 284, 291.
 Istria, 353.
 Istrin, V. M., 343, 344.
 Italy, 10, 21, 36, 39, 42, 95, 114, 123, 141-222, 240-326, 347-354.
 Ivo Carnotensis, 375.
- Jacob Anatoli, 108, 251, 259, 261, 284.
 Jacob, Master, alchemist, 281.
 Jacobs, J., 17, 128.
 Jafar, *see* Ma'ashar.
 James of Venice, 144 f., 149, 197, 206, 222, 227 f., 232, 233, 235, 238.
 James, M. R., 33, 87, 93, 126, 179, 209, 274, 281, 357, 358.
 Jastrow, J., 268.
 Jehuda ben Moses Cohen, 17.
 Jehuda ben Solomon Cohen, 251 f., 265.
 Jerome, 65, 145, 151, 199, 200.
 Jerusalem, 32, 139, 213.
 Jews, 5, 7, 9 f., 11-14, 17 f., 23, 26, 41, 44, 67, 74, 96, 98, 115-119, 127, 246, 248, 251, 265, 278, 281 f.
 Jezzar, ibn el-, 374.
 Joachite friars, 174.
 Joanna of England, wife of William II of Sicily, 189.
 Joannes, son of Eugene, 171.
 Johannes Afflacijs, *see* John the Saracen.
 Johannes de Burgundia, 208.
 Johannitus, *Iohannicius*, 92, 369, 374.
 John, gospel of, 185, 376.
 John of Amalfi, 142.
 John Argyropoulos, 241.
 John of Basingstoke, 237.
 John Belmeis, 188.
 John, duke of Bourbon and Auvergne, 111.
 John II (Comnenus), Byzantine emperor, 144, 145, 161, 203.
 John Chrysostom, *see* Chrysostom.
 John of Cornwall, 237.
 John of Damascus, 145, 146, 152, 153, 207, 211, 222.
- John de Dampierre, 301.
 John David, 11, 13 f., 56. *See* John of Seville.
 John 'de Dumpno,' 270.
 John of Garland, 358 f., 372.
 John the Grammarian, 239.
 John of Hexham, 156.
 John of Holywood, *see* John of Sacrobosco.
 John of Lincoln, 187.
 John of Luna, 13. *See* John David.
 John Malalas, 338, 344.
 John Mandeville, Sir, 208.
 John, bishop of Norwich, 127, 189.
 John of Palermo, 248, 249.
 John Phurnes, 195.
 John the Roman, 198.
 John of Sacrobosco, 277, 279, 282 f.
 John of Salisbury, 147 f., 156, 166, 169, 183, 184, 213, 226 f., 230, 231, 235, 237, 238, 371, 373.
 John the Saracen, 132.
 John Sarrazin, 147 f., 151.
 John the Scot, *see*
 John Scotus Eriugena, 151, 200, 226.
 John of Seville, 10, 13, 17, 18, 30, 45, 56, 69, 77, 80, 127, 137, 138. *See* John David.
 John of Spain, 13 f. *See* John David.
 John, abbot of Telese, 186 f.
 John of Toledo, 277.
 John, translator of Aristotle, 237 f., 239.
 John of Valentia, 138.
 John of Winterthur, 257.
 John of Worcester, 23, 119.
 Joinville, 365.
 Jordanus de Calabria, 256.
 Jordanus Nemorarius, 25.
 'Jorlandus episcopus,' 186 f.
 Joseph the Wise, 8.
 Josephus, 371.
 Jourdain, A., 13, 16, 20, 33, 43, 56, 164, 223, 225, 228, 229, 231, 237, 238, 239, 260, 261, 272, 273, 278, 279, 368.
 Jowett, B., 88.
 Juan de Ornos, 123 f.
 Jubair, ibn, 7.
 Justin, historian, 373.

- Justinian I, Byzantine emperor, 209, 217, 375.
 Justinian II, Byzantine emperor, 199.
 Juvenal, 204, 370 f., 372.
- Kalila and Dimna, 143, 153, 175 f.
 Kampers, F., 174, 175.
 Kap-Herr, H. von, 195.
 Karpinski, L. C., 91, 120, 122.
 Karst, A., 310.
 Kayser, K., 343.
 Kehr, K. A., 155, 160, 169, 188.
 Ker, W. P., 4.
 Ketton, Ketene, 120.
 Khan, Great, 320, 326.
 Khwarizmi, Mohammed ben Musa al-, 7, 12, 14, 22 ff., 33, 34, 44, 51, 55, 56, 73, 74, 82, 117, 122, 123.
 Kindi, al-, 54, 55, 56 f., 73, 74, 77, 80, 121, 123.
 Kingsford, C. L., 237.
 Kiranides, 146, 153, 219 ff.
 Köhler, R., 254.
 Koran, 12, 47, 58, 120 f.
 Kraus, F. X., 168.
 Krey, A. C., 371.
 Krumbacher, K., 172, 174, 175, 178, 195, 196, 212, 216, 221, 244.
 Kurth, G., 334.
- Lafuente, M., 70.
 La Mantia, F. G., 187.
 Lancia di Brolo, D. G., 178.
 Langley, E. F., 242, 245.
 Langlois, C. V., 52, 53, 113, 120, 137, 246, 254, 280, 336.
 Languedoc, 96.
 Laon, 33, 113, 333.
 'Laudus episcopus,' 187.
 Leclerc, L., 6, 69, 77.
 Lefebvre, B., 52, 334.
 Legrand, E., 177.
 Leland, J., 124 f., 126.
 Lenormant, F., 155.
 Leo the Armenian, Byzantine emperor, 174.
 Leo the Pisan, *see* Leo Tuscus.
- Leo Tuscus, 131, 146, 194, 214, 215-218, 222.
 Leon, 10, 47, 55, 68.
 Leonard of Pisa, 5, 11, 246, 248, 249, 259, 272, 275.
 Leonardo Bruni Aretino, 167 f.
 Lérida, 71.
 Levy, R., 208.
*Liber auguriorum, ymaginum, et prestigi-
 orum*, 288.
*Liber de ancipitribus et falconibus et curis
 eorum*, 354.
Liber de aere et aquis, 94.
Liber de elementis, 94.
Liber de vera philosophia, 213.
Liber Maiolichinus, 132.
Liber Martii, 93 f.
Liber perditionis anime et corporis, 288.
Liber proportionum, 121.
Libice, 63.
Libri Haroldi regis, 28, 34 f., 347.
Libros de saber, 17.
 Liebermann, F., 329.
 Liège, 330, 334.
 Lipari, 267, 294, 296 f., 298.
 Lippmann, E. von, 280.
 Lisbon, 64.
 Liutprand, 174.
 Livy, 373.
 Lockwood, D. P., 153, 155, 158.
 Lodi, 324.
 Loewe, G., 213.
 Lombardy, 308, 353.
 London, 120, 122, 123, 128, 186.
 Lo Parco, F., 142, 170, 208.
 Loparev, K. M., 196.
 Lorraine, 113, 333 ff.
 Lothair II (of Saxony), emperor, 195.
 Louis VI, king of France, 21.
 Lucan, 96, 103, 200, 205, 370, 372.
 Lucas, archimandrite, 173.
 Lucera, 252.
 Lucius III, pope, 146, 215, 218.
 Lucretius, 233.
 Luiso, F. P., 168.
 Lupi, M., 197.
 Lupitus of Barcelona, 8.
 Luquet, G. H., 16, 368.

- Lycaonia, 216, 217.
 Lyons, 359.
 Ma'ashar Ja'afar, abu, 22, 30, 33, 76, 77,
 121, 221, 288.
Macer, 369, 375.
 McKinlay, A. P., 181, 233.
 Macray, W. D., 44, 53, 124.
 Macrobius, 31, 38, 65, 86, 88, 90, 93, 96,
 98, 103, 371.
 Mädlar, J. H. von, 369.
 Magna Graecia, 33, 155, 184.
 Maimonides, 7, 98, 99, 103, 135, 252, 282.
 Maio, 142, 160, 166.
 Maitland, F. W., 332.
 Majorca, 132.
 Malagola, C., 356.
 Malgerio, Neapolitan falconer, 349, 350.
 Malik al-Kamil, al-, 253, 265.
 Mall, E., 113, 336.
 Malta, 324, 325.
 Mamun, al-, 105.
 Mandonnet, P., 223, 224, 226, 228, 236,
 239, 288, 338.
 Maneanus, *see* 'Edmundus Saracenus.'
 Manfred, king of Sicily, 5, 142, 154, 165,
 251, 261, 269 ff., 284, 301, 302, 303,
 304, 305, 306, 310 f., 317, 350 f.
 Manistra, 26.
 Manitius, M., 8, 52, 95, 104, 105, 108,
 142, 147, 162, 195, 232, 334, 372, 373,
 375.
 Manuel I, Byzantine emperor, 143, 146,
 149, 161, 164 f., 174, 175, 194, 196,
 210, 212, 215 ff., 218, 220, 221, 222,
 254.
 Marc, P., 155.
 March, the, 353.
 Marchesi, C., 16, 168, 223.
 Marco Polo, 320.
 Margaret, wife of William I of Sicily,
 188.
 Mari, G., 359.
 Marianus Scotus, 84, 333, 334.
 Mark, canon of Toledo, 15.
 Marseilles, 10, 96, 125, 308.
 Marseilles Tables, 96 ff.
 Marsiglio Ficino, 168.
 Martial, 371, 372.
 Martianus Capella, 3, 36, 89, 192, 371.
 Martin-Dairvault, H., 349.
 Martini, E., 214.
 Martinus falconerius, 349.
 Marx, J., 168.
 Marzo, G. di, 122, 280.
 Mashallah, 76, 77. *See* Messehala.
 Maslama, 7, 10, 18, 22, 47, 56.
 Mas Latrie, L., Comte de, 252.
 Matilda, wife of Henry I of England,
 22.
 Matteo Palmieri, 240.
 Matthew of Ferrara, 134.
 Matthew, Master, 29.
 Matthew Paris, 252, 255, 258, 260, 367.
 Matthew Scot, 273.
 Maximus the Confessor, 146.
 Mazzatinti, G., 214, 349.
 Mazzuchelli, G. M., 206.
 Medibibaz the Saracen, 281.
 Medley, 170.
 Mehren, A. F., 264.
 Meinzo *scolasticus*, 52.
 Melfi, 279.
 Mély, F. de, 219.
 Menendez y Pelayo, M., 7.
 Menge, H., 178.
Meotidae paludes, 63.
 Mercati, G., 152, 207, 208.
 Merlin, 254.
 Meroë, 63.
 Messahala, Messehalla, 14, 66, 98, 288.
 See Mashallah.
 Messina, 170, 172, 184, 185, 186, 187,
 262, 267, 290.
 Meyer, E., 220.
 Meyer, P., 78, 113, 254, 319, 336, 348,
 351, 354, 355, 360, 362, 363 ff.
 Michael Anchialou, 196.
 Michael Comnenus, 324.
 Michael of Cornwall, 277.
 Michael, monk of Dover, 86.
 Michael, St., 186.
 Michael Scot, 5, 15 f., 18, 135, 138, 245 f.,
 247, 249, 251, 257, 258, 259, 260 f.,
 264, 266 f., 272-298, 314, 316.
 Michael Syncellus, 147.

- Michael, bishop of Tarazona, 10, 12, 69-79.
 Michaud, J., 255, 260, 270.
 Middlesex, 329.
 Milan, 198.
 Mileto, 186.
 Minges, P., 152, 207, 224, 241, 278, 367, 368.
 Miro Bonusfilius, bishop of Gerona, 8.
 Mitylene, 204.
 Moamyn, 247 f., 309, 311, 316, 318, 319, 320, 350, 351, 354.
 Mohammed ben Ahmed el-Biruni, 73, 74.
 Molise, 325.
 Mommsen, T., 209.
 Monaci, E., 199, 317.
Mons Amorceorum, 31 f., 339. *See* *Moriah*.
 Montana, J. F., 17.
 Monte Gargano, 280.
 Montegrotto, 292, 296 f.
 Monte Palladino, 350.
 Montepulciano, 292, 296 f.
 Monticolo, G., 198.
 Montpellier, 96, 281, 352, 356.
 Mont-St.-Michel, 186.
 Morelli, 240.
 Moret, J. de, 70.
 Moriah, Mount, 32.
 Morienus, 12, 122.
 Morocco, 264.
 Morris, W. A., 328.
 Mortara, A., 353.
 Mortet, V., 225.
 Moses, 192, 204, 286.
 Moses Arovas, 130.
 Moses of Bergamo, 144, 145, 149, 150, 194, 197-206, 222.
 Moses Muzio (or Mozzi), 199.
 Mosul, 246, 265.
 Moulé, L., 256.
 'Moyses de Grecia,' 199 f.
 Mozarabs, 12, 15.
 Müller, G., 206, 213, 214, 215, 218.
 Müntz, E., 318.
 Munt, *see* Ioanton.
 Muratori, L. A., 122, 199, 244, 258.
 Murcia, 16.
 Mustoxidi, A., 212.
 Nagl, A., 24.
 Nagy, A., 121.
 Nallino, C. A., 6, 11, 14, 17, 22, 23, 63, 64, 69, 104, 122.
 Napier, A. S., 334.
 Naples, 137, 138, 184, 185, 249, 250 f., 356, 369.
 Narbonne, 10, 74, 96.
 Narducci, E., 171, 318, 327, 328, 329.
 Nau, F., 80.
 Navarre, 120.
 Nebuchadnezzar, 218.
 Nechepso, 124.
 Nectarius of Casule, 196.
 Nemesius, 93, 142, 145, 153, 207, 209.
 Neoplatonism, 89.
 Neuburger, M., 131, 209, 222, 374.
 New Testament, 143, 183, 190, 207, 376.
 Nicetas Acominatus, 178.
 Nicetas of Maronea, 196.
 Nicetas, archbishop of Nicomedia, 195, 197.
 Nicholas of Casule, 196.
 Nicholas of Cusa, 168.
 Nicholas the Fish, 262.
 Nicholas of Iamsilla, 244, 310.
 Nicholas of Methone, 195, 196, 214.
 Nicholas of Otranto, 215.
 Nicholas of Reggio, 208.
 Nicholas, St., 186.
 Nicholas of Sicily, 269.
 'Nicolaus peripateticus,' 279.
 Nicomachus Gerasenus, 232.
 Niese, H., 187, 243, 244, 249, 250, 299, 316.
 Nile, the, 37 f., 63, 100.
 Nilus Doxopates, 142, 156, 174, 190.
 Nimrod the astronomer, 113, 286, 288, 336-345.
 Nineveh, 255.
 Noah, 343.
 Nod, land of, 343.
 Nolhac, P. de, 167.
 Norden, W., 212, 370, 371.
 Norgate, K., 29.
 Normandy, 185 ff.
 North Africa, 5.
 Norway, 263, 316.

- Notker of St. Gall, 52.
 Novati, F., 142, 164, 167, 243, 257, 299.

 Ocreatus, 35.
 Odo, bishop of Bayeux, 330.
 Odo of Meung-sur-Loire, 375.
 Odo, abbot of Saint-Denis, 147.
 Odofredus, 248.
 Oeconomos, L., 221.
 Old Testament, 202, 207, 337, 375 f.
 Olympus, 62.
 Omar, 14.
 Omont, H., 128, 176.
 Onofrius, archimandrite, 173.
 Ordericus Vitalis, 185, 186, 328, 330.
 Orleans, 365.
 Osbern, 150.
 Osbert, 189.
 Oseney, 170.
 Osternacher, J., 372.
 Otto of Freising, 178, 213, 226, 231, 232, 233.
 Otto, F. W., 359.
 Ottonel of Parma, 286.
 Oudin, C., 119.
 Ovid, 98, 159, 162, 193, 205, 217, 284, 370, 372.
 Oxford, 239, 273, 356.

 Pacius, J. E., 300.
 Padua, 247, 258, 292.
 Paetow, L. J., 356, 358, 370.
 'Paganus clericus Britannus,' 201.
 Pagel, J. L., 132, 374.
 Palermo, 53, 142 ff., 156, 159, 160, 164, 171, 172, 174, 188, 189, 191, 270.
 Palestine, 32, 34.
 Palitzsch, F., 288.
 Pamplona, 10, 56, 68, 120.
 Pancus, 133.
 Pansier, P., 220, 222, 257.
Pantegni, 134, 369, 374.
 Paolucci, G., 251, 299.
 Papias the Lombard, 150.
 Papon, J. P., 308.
 Pappadopoulos, J. B., 253.
 Pardi, G., 243.

 Paris, 15, 55, 127, 147, 154, 239, 269, 273, 356-376.
 Parma, 111, 247, 255, 258, 262, 309, 310.
 'Parthi,' 320.
 Paschal the Roman, 146, 218-221, 222.
 Paul, St., 298.
 Paul the Saracen, 258.
 Pauli, R., 156, 188, 334.
 Pauline epistles, 147, 376.
 Pelster, F., 223, 260, 308.
 Pelzer, A., 16, 69, 94, 128, 159, 164, 223, 260, 262, 270, 273, 284, 301, 318.
 Pendzig, P., 146.
 Pergusa, fount of, 159, 160, 191.
 Peripatetics, 101, 103.
 Perles, J., 282.
 Persians, 136, 218, 338, 343.
 Persius, 371.
 Pertz, G. H., 291.
 Pesenti, E., 197, 199.
 Peter, *see also* Petrus, Pietro.
 Peter of Abano, 208.
 Peter Abelard, *see* Abelard.
 Peter Alexandrinus, 286.
 Peter of Blois, 184, 188, 371.
 Peter de Brolo, 197 f., 203.
 Peter Chrysolanus, 195, 197.
 Peter of Cluny, 11.
 Peter Lombard, 207.
 Peter of Pavia, 212.
 Peter of Poitiers, 367.
 Peter di San Matteo, 197. *See* Peter de Brolo.
 Peter of Toledo, 11.
 Peter the Venerable, 43, 47, 54, 55, 56, 120.
 Petit-Dutaillis, C., 327.
 Petosiris, 124.
 Petrarch, 150, 154, 167, 299.
 Petronius, 372.
 Petrus Alphonsi, 10, 18, 22, 23, 24, 35, 113, 115-119.
 Petrus Anfulsus, *see* Petrus Alphonsi.
 Petrus Anfusi, 115-119. *See* Petrus Alphonsi.
 Petrus compotista, 86.
 Petrus Diaconus, 4, 195.
 Petrus de Ebano, 208.

- Petrus de Ebulo, 244.
 Petrus falconerius, 354.
 Petrus de Hibernia, 251, 270.
 Petrus Hispanus, 257.
 'Petrus prepositus,' 198, 199.
 Petrus *scolasticus*, 210, 212.
 Pfister, F., 147.
 Pharaoh, 218.
 Philaretus, 369.
 Philip I, king of France, 21.
 Philip II (Augustus), king of France, 368.
 Philip de Grève, 278, 368.
 Philip, physician of Pope Alexander III, 138, 221.
 Philip de Thaon, 84, 86, 113, 330 f., 336-339.
 Philip of Tripoli, 137-140, 261.
 Philip, chanter of Tripoli, 138.
 'Philippus de Dumpno,' 270.
 'Philippus subdiaconus,' 138.
 'Philocosmia,' 36.
 'Phylophonia Wuttoniensis Ebdelmesie,' 109, 110.
 Picatrix, 17.
 Picavet, F., 19.
 Pichon, J., 300, 302, 303, 304.
 Pico della Mirandola, 41.
 Piero della Vigna, 247, 248 f.
 Pietro da Eboli, 257. *See* Petrus de Ebulo.
 Pijoán, J., 8.
 Pirro, R., 21, 173.
 Pisa, 131, 132, 134, 144, 145 f., 206, 240, 249, 275, 290, 324.
Pilagoricum bivium, 65.
 Pitra, J. B., 199 f.
 Platearius, 134.
 Plato, 31, 36, 38, 41, 61 f., 82, 88, 92, 94, 98, 99, 143, 150, 152, 153, 190; *Meno*, 88, 143, 153, 160, 165, 166 ff.; *Phaedo*, 88, 143, 153, 160, 166-169, 181; *Timaeus*, 36, 38, 58, 65, 88, 93, 127, 151, 153.
 Plato of Tivoli, 9, 10, 11, 14, 18, 51, 67, 68, 98, 110, 121.
 Plautus, 371.
 Pleiads, 341, 342.
 Pliny, 65, 86, 88, 89, 150, 168, 169, 170, 315, 371.
 Poggio Bracciolini, 208.
 Policastro, gulf of, 350.
 Poole, R. L., 22, 34, 55, 84, 89, 90, 113, 137, 184, 226, 327, 328, 333.
 Porphyrius, 232, 373.
 Porretta, 292, 296 f.
 Potthast, A., 275.
 Pozzuoli, 257.
Practica Hugonis, 80.
 Prantl, K. von, 226, 231, 236, 237.
 Prester John, 138, 221, 254.
 'Priamus rex Graecorum,' 174.
 Priscian, 98, 150, 151, 370, 371, 373.
 Proclus, 160, 171, 179 ff., 189, 191, 244.
 Provence, 96, 244, 251, 308.
 Prudentius, 371.
 Psalter, the, 184, 207, 376.
 Pseudo-Aristotle, *see* Aristotle, Pseudo-.
 Pseudo-Bede, 90.
 Pseudo-Boethius, 91, 370.
 Pseudo-Dionysius, *see* Dionysius the Areopagite.
 Pseudo-Methodius, 343 ff.
 Ptolemy, Claudius, 5, 7, 30, 41, 51, 56, 63, 66, 67 ff., 74, 82, 88, 91, 95, 98, 100, 101, 103-112, 123, 222, 259, 277, 284; *Almagest*, 11, 15, 19, 53 f., 68, 69, 73, 82, 95, 100, 101, 103-110, 121, 127, 143, 148 f., 153, 157-165, 168, 171, 178, 179, 181, 190, 191 ff., 221, 244, 251, 288, 369; *Canons*, 91, 110, 369, 370, 374; *Optics*, 5, 68, 110, 143, 171, 189, 244; *Planisphere*, 12, 43, 47, 48, 50, 52-56, 68, 90, 110, 120; *Quadripartitum*, 11, 68, 69, 73, 110 ff., 153.
 Ptolemy, Pseudo-, *Centiloquium*, 12, 14, 51, 68-72, 80, 110.
 Ptolemy, King, 286, 317, 352.
 Puccinotti, F., 209.
 Puntoni, V., 175.
 Pyrenees, the, 4, 9, 96, 339.
 Pythagoreans, 329.
 Querfeld, A. H., 283, 286, 287, 291.
 Quicherat, J., 264.

- Quintilian, 374.
 Quintus Curtius, 373.
 Ragusa, 206.
 Rainaldus de Monte Catano, 215.
 Ralph de Diceto, 186, 187, 365.
 Ralph of Laon, 90, 333.
 Ralph of Liège, 334.
 Ramsay, J. H., 189.
 Rand, E. K., 184, 226.
 Ranke, L. von, 299.
 Rashdall, H., 239, 250, 369, 370, 371.
 Raumer, F. L. G. von, 299.
 Ravenna, 254, 286.
 Raymond Lull, 220.
 Raymond of Marseilles, 96 ff.
 Raymond, archbishop of Toledo, 10, 13, 67, 70.
 Razi, *see* Rhazes.
 Reginald, abbot of Ramsey, 328.
 Reginbald of Cologne, 334.
 Reims, *see* Rheims.
 Remigius of Auxerre, 162, 192, 370, 373.
 Renan, E., 3, 17, 96, 246, 251, 265, 278, 279, 284.
 Renzi, S. de, 271, 356, 369.
 Rezak, C., 375.
 Rhazes, 131, 286.
 Rheims, 211, 213, 286.
 Ribera, J., 6.
 Riccobaldi of Ferrara, 275.
 Richard, earl of Cornwall, 255.
 Richard I, king of England, 365.
 Richard Fitz-Samson, 26 f.
 Richard de Fournival, 31, 50, 183, 238.
 Richard of Hereford, 187.
 Richard of Kent, 26 f.
 Richard Palmer, 187, 188.
 Richard of San Germano, 256, 259, 305.
 Richard, C., 185.
 Rickwood, G., 332.
 Rigault, N., 216.
Riphei montes, 63.
 Riprandino of Verona, 258.
 Ritter, H., 17.
 Robert of Anjou, king of Naples, 154.
 Robert of Chester, 9, 11 f., 31, 35, 44-49, 51, 54 ff., 61, 64, 66 ff., 120-123, 126.
 Robert of Cricklade, 169 ff.
 Robert Curthose, 186.
 Robert the Englishman, 121. *See* Robertus Ketenensis.
 Robert, earl of Gloucester, 27.
 Robert Grossetete, 20, 237 f., 239, 344.
 Robert, bishop of Hereford, 84, 333 ff.
 Robert of Northampton, 125.
 Robert of St. Frideswide's, 187.
 Robert of Selby, 156, 169, 188.
 Robert of Torigni, 144, 185, 186, 189, 207, 227, 228, 230, 330.
 Robert, U., 85.
 Roberto de' Rossi, 240.
 Robertus Anglicus, 121.
 Robertus Ketenensis, or Retinensis, *see* Robert of Chester.
 Robinson, J. A., 328, 329, 331, 332.
 Roda, Rueda Jalón, 12, 71.
 Rodez, 348.
 Röhricht, R., 134, 138, 139, 253, 260, 270.
 Roffredus of Benevento, 251.
 Roger Bacon, 15, 20, 25, 40, 41, 45, 125, 128, 129, 138, 150, 164, 167, 239, 245, 260, 272, 277, 278, 283 f., 285, 287, 338, 368.
 Roger Fescan, 187.
 Roger of Hereford, 87, 124 ff., 128.
 Roger of Hoveden, 128, 186, 189, 365.
 Roger Infans, Puer, or Yonge, 124 f.
 Roger Marchall, 358.
 Roger of Otranto, 172.
 Roger of Palermo, 254.
 Roger I, grand count of Sicily, 171.
 Roger, king of Sicily, 53, 142, 156, 159, 161, 169, 174, 185, 187, 188, 189, 190, 243, 268, 308, 348 f.
 Roland of Cremona, 246.
 Rolandino, 247.
 Romagnola, 292.
 Romanus, 282.
 Rome, 21, 139, 154, 169, 170, 280, 365, 370.
 Romualdus of Salerno, 156, 188.
 Roncesvalles, 4.
 Ronchetti, G., 197.
 Roscher, W. H., 32.

- Rose, V., 12, 15, 16, 19, 104, 126 f., 132, 133, 134, 152, 155, 157, 165 f., 167, 169, 179, 182, 184, 225, 228, 236, 283, 368, 374, 375.
 Rota, 71.
 Rouen, 185, 186, 187.
 Round, J. H., 29, 120, 327, 328, 331, 334.
Rubeae silvae, 63.
 Rudberg, G., 278.
 Rudolf of Bruges, 9, 12, 14, 43, 47, 56, 67.
 Rück, K., 169, 170.
 Ruelle, C., 219, 222.
 Rufinus of Alessandria, 16.
 Ruska, J., 4, 122.
 Rusticus of Pisa, 132.
 Ruteboeuf, 254.
 Rutland (Rotolandia), 329, 331.
 Rystenko, A. V., 176.

 Saba Malaspina, 258, 262.
 Sabbadini, R., 153, 207.
 Sabin, ibn, 264 f., 292.
Sacerdos ad altare accessurus, 357-376.
 Sackur, E., 343, 344.
 St. Albans, 359.
 St. Denis, 147.
 St. Eufemia, monastery, 186.
 St. Evroult, monastery, 186.
 St. Martin of Séz, abbey, 72.
 Salamanca, 19, 164.
 Salerno, 21, 31, 132, 134, 143, 159, 184, 185, 186, 190, 191, 194, 250, 356, 369.
 Salimbene, 255, 258, 260, 262, 275, 276, 290, 310, 322.
 Salio, Master, canon of Padua, 16, 258.
 Sallust, 193, 372, 373.
 Sambon, A., 186.
 Samson of Worcester, 334.
 Sanchez Pérez, J. A., 6.
 Sandys, Sir J. E., 144, 150, 223, 239, 273, 358, 372, 373.
 Sanford, E. M., 371.
 San Juan de la Peña, 70.
 Santalla, 71 f.
 Saracens, *see* Arabs.
 Saragossa, 71.

 Sardinia, 319, 353.
 Sardus, falconer, 325.
 Sathas, K. N., 221.
 Saul ben Bischr, 44, 55, 56, 288.
 Savasorda, 10, 11, 17, 18.
 Savigny, F. K. von, 206, 207, 209.
 Saxl, F., 8, 83, 287, 288, 339.
 Saxo, sacred falcon of Frederick II, 324.
 Scandone, F., 245, 247.
 Schaarschmidt, K., 184, 230, 371.
 Schaeffer, P. B., 185.
 Schaub, A., 142, 252.
 Schedler, M., 88.
 Scheffer-Boichorst, P., 255, 345.
 Scheler, A., 358, 359, 360.
 Schiller, 262.
 Schirrmacher, F. W., 262, 269.
 Schlegel, A. W. von, 88.
 Schmidlin, J., 226, 228, 231, 233, 236.
 Schmidt, J., 195, 196.
 Schmidt, W., 182.
 Schneider, A., 90, 226.
 Schneider, F., 247.
 Schneider, J. G., 300, 314, 315.
 Schöpffer, H., 300.
 Schück, A., 295.
 Schulte, J. F. von, 366.
 Schulz, H. W., 305.
 Schum, W., 179, 209, 369.
 Scolari-Saba, 170.
 Scotland, 245, 272, 275.
 Scotus Eriugena, *see* John Scotus.
 Scythia, 63.
 Seckel, E., 366.
Secretum secretorum, *see* Aristotle, Pseudo-.
 Secundus, 147.
 Segovia, 10, 68, 120.
 Senebier, J., 302.
 Seneca, 41, 65, 93, 365, 372.
 Septuagint, the, 151, 184.
 Seres, 217.
 Seroux d'Agincourt, J. B., 300, 301.
 Seville, 19.
 Shirko, 136.
 'Sicilian questions,' 264 f., 292.
 Sicily, 5, 21, 33, 42, 53, 67, 68, 95, 103, 105, 130, 132, 134, 141 ff., 150, 155-

- 193, 194, 222, 225, 226, 236, 237, 242-326, 348-353, 369.
- Sidon, 139.
- Sidonius, 373.
- Sidrach*, 245, 247, 254.
- Sigebert of Gembloux, 231.
- Sigerist, H. E., 133.
- Silva-Tarouca, 352.
- Silvester II, *see* Gerbert.
- 'Simachus,' 352, 373.
- Simeon of Durham, 334.
- Simeon Seth, 175 f.
- Simon of Apulia, 188.
- Simon de Bredon, 111.
- Simon Magus, 286.
- Simon de rotol,' 327, 329, 331.
- Simon of Tournai, 367.
- Simonsfeld, H., 195.
- Singer, C., 84, 127.
- Singer, Mrs. Dorothea, 208.
- Singer, H., 366.
- Siragusa, G. B., 155, 160, 169.
- Sisilacera*, 222.
- Slavonia, 297, 350, 353.
- Smith, D. E., 7, 17, 25, 91.
- Smith, J. J., 358.
- Socrates, 167.
- Söderhjelm, W., 119.
- Sola, G. N., 173.
- Solinus, 88, 371, 373.
- Solomon, 286.
- Solon, 103.
- Sophronius, 211.
- Sorbelli, A., 164.
- Soury, J., 39.
- Spain, 3-19, 34, 42, 47, 55 f., 67-81, 90, 108, 110, 118 f., 120, 122, 125, 126 ff., 130, 133, 184, 227, 228-237, 245, 246, 273-279, 286, 339, 369.
- Speculum astronomie*, *see* Albertus Magnus.
- Spiegelberg, W., 124.
- Spiritus Martinus Cuneas, 181.
- Stadler, H., 278, 307, 375.
- Stadius, 38, 371, 372.
- Steele, R., 14, 137, 261, 287.
- Steindorff, E., 334.
- Steinschneider, M., *passim*.
- Στεφανίτης καὶ Ἰχνηλάτης*, *see* Kalila and Dimna.
- Stephanonus, 134. *See* Stephen of Antioch.
- Stephen of Alexandria, 135.
- Stephen of Antioch, 103, 131-135, 145.
- Stephen, king of England, 29, 119.
- Stephen Langton, 274, 275.
- Stephen, bishop of Le Puy, 348.
- Stephen of Messina, 270.
- 'Stephen the philosopher,' 98-103, 135.
- Stephen of Pisa, 4. *See* Stephen of Antioch.
- Stephen of Provins, 135, 278.
- Stephen, St., 198.
- Stephen of Saragossa, 16.
- Stephen of Tournai, 366.
- Sternbach, L., 172, 173.
- Stevenson, W. H., 84, 334.
- Sthamer, E., 244.
- Stornajolo, C., 133.
- Straus, R., 252, 284.
- Streeter, E. C., 131, 316.
- Strixis*, 63.
- Stromboli, 267, 294, 297.
- Stubbs, W., 34, 188.
- Sudhoff, K., 14, 39, 127, 132, 246, 250, 254, 257, 286, 299, 374.
- Suetonius, 373.
- Sussex, 329.
- Suter, H., 7, 22, 23, 44, 56, 74, 77, 104, 246, 265, 270, 369.
- Swainson, C. A., 215.
- Sydonius, *see* Sidonius.
- Syene, 32.
- Syracuse, 21, 169, 170.
- Syria, 4, 5, 10, 32, 33, 39, 42, 130-140, 141, 184, 264, 343, 345.
- 'T., queen of Spain,' 14.
- Tallgren, O. J., 17.
- Tamassia, N., 209.
- Tamprobane*, 63.
- Tanner, T., 20, 28, 30, 32, 33, 34, 114, 119, 124, 126, 128, 169, 358.
- Tannery, P., 24, 71, 77, 78, 80, 98, 104, 219, 334.
- Tarazona, 10, 68-71.

- Tarif, *see* Yatrib.
 Tarih Mansuri, 253.
 Tarsus, 26, 130.
 Tenred of Dover, 87.
 Terence, 38, 151, 200, 371.
 Terra di Lavoro, 325.
 Terrisius of Atina, 251.
 'Teuredus grammaticus,' 166.
 Thabit ben Korra, 14, 30, 88, 288.
Thadeus Ungarus, 104.
 Thebit ben Korah, *see* Thabit ben Korra.
 Themiscyra, 63.
 Themistius, 15, 229, 238.
 Theodore of Antioch, *see* Theodore the philosopher.
 Theodore Lascaris, 253.
 Theodore Metochita, 178.
 Theodore the philosopher, 130, 245, 246 ff., 249, 253, 257, 258, 311, 318 f., 320.
 Theodoret, 211.
 Theodosion, 352.
 Theodosius Alexandrinus, 150, 202-206.
 Theodosius, Roman emperor, 317, 352.
 Theodosius the Saracen, 281.
 Theodosius Tripolita, 123; *Spherics*, 15, 31, 35, 51, 66, 121.
 Theodulus, 372.
 Theophanes Cerameus, 178.
 Theophilus, court physician at Constantinople, 222.
 Theophilus Protospatharius, 92, 151, 369, 374 f.
 Theophilus, king of the Saracens, 281.
 Theorianus, 196.
 Theoridus of Brindisi, 166.
 Théry, G., 147.
 Thessali, 167.
 Thessalonica, 195, 198, 203.
 Thierry of Chartres, 38, 47, 52, 55, 85, 89 ff., 92, 226, 231, 370.
 Thomas, A., 125, 306.
 Thomas Aquinas, 164, 207, 239, 251.
 Thomas Becket, 169, 186, 188.
 Thomas Brown, 189.
 Thomas of Cantimpré, 41.
 Thomas of Capua, 302.
 Thomas, abbot of Gloucester, 365.
 Thomas of York, 334.
 Thorndike, L., 4, 11, 13, 14, 16, 19, 20, 22, 25, 27, 30, 33, 36, 38, 39, 41, 44, 66, 74, 75, 78, 80, 94, 97, 98, 115, 119, 121, 122, 124, 127, 137, 138, 147, 208, 216, 217, 218, 219, 220, 221, 257, 258, 260, 263, 270, 271, 272, 273, 280, 285, 288, 338, 352, 360, 367, 374, 375.
 Thraces gladiatores, 365.
 Thule, 63.
 Thurkil compotista, 84, 113, 327-333, 336, 337.
 Thurkil of Essex, 328.
 Thurkil of Westminster, 331.
 Thurstin, abbot of Glastonbury, 330.
 Tiraboschi, G., 195, 199.
 Tobit, 364.
 Toledo, 7, 10, 12 ff., 18, 19, 55, 64, 67, 68, 97, 98, 104, 108, 123, 125, 127, 156, 163, 228-237, 245, 273, 277.
 Tolosa, 47.
 Torraca, F., 251, 348.
 Torres and Gallura, 319, 351.
 Toulouse, 10, 47, 55, 68, 96, 359.
 Tours, 21, 33.
 Traube, L., 83, 133, 200.
 Tripoli, 137 ff.
 Trogus Pompeius, 373.
 Trotula, 286.
 Tudela, 72.
 Tunis, 247, 252, 253, 254, 290.
 Turchillus, *see* Thurkil.
 Turks, 94, 136, 215 ff.
 Tuscany, 209, 252, 353.
 'Tuz Ionicus,' 66.
 Twelve Tables, the, 151.
 Tyre, 4, 139, 255.
 Ueberweg, F., 13, 20, 36, 90.
 Ughelli, F., 187.
 Unger, F. W., 217.
 Usener, H., 135.
 Vacarius, Master, 227.
 Valence, or Valencia, 137, 138.
 Valentinelli, G., 174, 208, 238, 240, 338.
 Valerius Maximus, 371.
 Valois, N., 368.

- Vasilievskii, V. G., 195.
 Velsler, M., 300.
 Venice, 144 f., 154, 198, 290.
 Venosa, 186, 253.
 Ventimiglia, 353.
 Venturi, A., 301, 305, 306.
 Verona, 255.
 Veselovsky, A. N., 344.
 Vicenza, 258.
 Vieillard, C., 368.
 Villard de Honnecourt, 255.
 Vincent of Beauvais, 41, 279.
 Virgil, 41, 86, 200, 205, 215, 284, 286, 370, 372, 373.
 Virgil of Cordova, 19.
 Vitalis of Savigny, 331.
Vita Secundi, 147.
 Viterbo, 268, 292, 296.
 Vitruvius, 65.
 Vittoria, 309, 310.
 Vitzthum von Eckstädt, Georg, Graf, 301 f.
 Voigt, G., 157, 164, 240.
 Vulcano, 267, 294.
 Vulgate, the, 184.

 Walcher of Durham, 334.
 Walcher, prior of Malvern, 113-117, 334.
 Wales, 365.
 Walter Anglicus, 324.
 Walter of Ascoli, 251.
 Walter of Burley, 239.
 Walter Francigena, 187.
 Walter Map, 126.
 Walter Offamil, archbishop of Palermo, 187, 188, 251.
 Ward, H. L. D., 246, 254.
 Warin of St. Alban's, 187, 359 f.
 Wattenbach, W., 52.
 Waxman, S. M., 19.
 Way, A., 358.
 Webb, C. C. J., 166, 184, 188, 226, 231, 236, 285, 371.
 Wedel, T. O., 257.
 Wegener, A., 16.
 Weissenborn, H., 25, 369.
 Wensinck, A. J., 32.
 Werner, K., 39.

 Werth, H., 256, 300, 306, 317, 318, 346, 348, 349, 352, 355.
 Werveke, N. van, 202.
 Westminster Abbey, 331, 332.
 Wickersheimer, C. A. E., 124.
 Wiedemann, E., 253, 265, 292.
 Wigodus, 170.
 Wilkins, E. H., 242.
 Willelmus compotista, 86.
 Willelmus, *see* William.
 William Anglicus, 219, 324.
 William Angligena, 13, 127.
 William Apulus, 186.
 William the astrologer, clerk of the constable of Chester, 128.
 William of Auvergne, 368.
 William of Auxerre, 368.
 William Bottatus of Milan, 308 f.
 William of Caen (?), 187.
 William of Conches, 29, 89, 92, 338, 339.
 William Corborensis, 150, 213.
 William II (Rufus), king of England, 328 f., 334, 335.
 William, falconer of King Roger of Sicily, 243, 308, 317 f., 348 ff., 354.
 William of Fécamp, 330.
 William, Lotharingian clerk, 334.
 William of Malmesbury, 114, 330, 333.
 William of Moerbeke, 183, 239.
 William of Newburgh, 186, 365.
 William the Physician, 146 f., 150.
 William R., 328, 329 f.
 William, archbishop of Rheims, 91.
 William de Ros, 330.
 William, monk of Saint-Denis, 147.
 William of S. Thierry, 92.
 William I, king of Sicily, 142, 143, 160, 161, 165 ff., 169, 172 f., 181, 189, 190, 243 f.
 William II, king of Sicily, 170, 172 f., 187, 188, 189, 243 f.
 William III, king of Sicily, 172.
 William of Soissons, 92.
 William Stafford, archdeacon of Madrid, 127.
 William, bishop of Syracuse, 21, 184, 187, 329.
 William of Tyre, 136.

- | | |
|---|--|
| <p>William of York, 188.
 Willner, H., 20, 36, 329.
 Willson, R. W., 11.
 Winchester, 125.
 Winkelmann, E., 242, 252, 253, 276.
 Winter, G., 268.
 Wölfflin, E., 371.
 Wolf, R., 104.
 Wright, J. K., 64, 130.
 Wright, T., 20, 85, 86, 113, 124, 125, 169,
 336, 358, 359, 360, 364.
 Wüstenfeld, F., <i>passim</i>.</p> | <p>Yatrib, 309, 320, 350, 351.
 Yemen, 264.
 Young, K., 187.
 <i>Ysland</i>, 63, 64.
 Yvo, <i>see</i> Ivo.

 Zacharias, Master, 222.
 Zael, <i>see</i> Saul ben Bischr.
 Zarkali, al-, 7, 18, 24, 82, 98, 122.
 Zarncke, F., 221, 254.
 'Zingius,' 86.
 Zoroaster, 286.</p> |
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STUDIES IN
MEDIAEVAL CULTURE

BY
CHARLES HOMER HASKINS



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TO
EDWARD KENNARD RAND
JOHN NICHOLAS BROWN

LOVERS OF
THE MIDDLE AGES

P R E F A C E

SO far as these studies in mediaeval culture have a common theme, it is the illustration of mediaeval civilization through the Latin literature of the times. The first three chapters deal with the mediaeval student, as seen in his letters, in sermons and *exempla*, and in the Latin manuals of deportment and conversation prepared for his guidance. The next chapter sketches the channels through which ideas and information spread in the Middle Ages. Chapter V treats of the Latin literature of sport and games, Chapter VI of the impression which the Emperor Frederick II and his court made upon his Latin contemporaries. Science is then touched in a Latin treatise on alchemy ascribed to Frederick's astrologer, Michael Scot. Contacts of the Western world with Byzantium are illustrated in the fields of relic-hunting, doctrinal controversy, hagiology, and the occult. The rise of the new Latin rhetoric of the Middle Ages is briefly traced in Italy and beyond the Alps. Chapters X and XI are concerned with heresy and the Inquisition in Northern France. In the concluding chapter the progress of mediaeval studies in the United States is exemplified by brief memoirs of the two leading American mediaevalists of the past generation, Henry Charles Lea and Charles Gross.

Much of the material comes from manuscripts, much from printed texts of a sort which has received too little attention from historians, so that references to the great editions of the chroniclers are comparatively few (except in Chapter X), and those to the standard collections of theology and law are still fewer. Of course these great repositories of narrative, documentary, and theological texts are fundamental for our knowledge of the structure of mediaeval society and the content of the mediaeval mind, but, taken by themselves, they give too bald and conventional an impression of mediaeval life and thought; and they need to be supplemented not only by vernacular literature and art but also by the more informal and

imaginative portions of the Latin literature of the age. Men joked and sang and told stories and made love in Latin, students wrote home for money in Latin, sports and games were described in Latin, astrologers and alchemists foretold the future and tried to make gold in Latin; and all of this is essential to a picture of the totality of mediaeval civilization. This volume seeks to emphasize the importance of these less used sources, as well as the necessity of combined effort on the part of historians, philologists, archaeologists, and other students of the art, philosophy, and literature of the Middle Ages.

Three of the studies have not before been printed, namely, those comprised in Chapters III, IX, and XI, while Chapter VIII is chiefly made up of fragments already published. The other chapters are republished, with detailed revision and sometimes with considerable amplification, from the *American Historical Review*, *Speculum*, *Isis*, and the *Proceedings* of the Massachusetts Historical Society, publications to which the author's thanks are due.

Among the many libraries whose hospitality I have enjoyed in gathering the materials for this volume, my indebtedness is greatest to the authorities of the Bibliothèque Nationale, the Vatican, and the British Museum, not to mention many other collections, consulted by photographs or on the spot, which will be found enumerated in the Index of Manuscripts and Libraries. For personal suggestion and help, my obligations to MM. Charles-Victor Langlois and Henry Omont are deep and of long standing.

To Harvard University I am grateful for grants from the Milton Fund for Research, as well as for President Lowell's personal encouragement of research. To the scholarship and editorial competence of Mr. George W. Robinson and to his unflinching help at all times I owe more than I can hope to express.

The many courtesies of the Clarendon Press are deeply appreciated.

C. H. H.

CAMBRIDGE, MASSACHUSETTS,
April 1929.

CONTENTS

I. The Life of Mediaeval Students as illustrated by their Letters	I
II. The University of Paris in the Sermons of the Thirteenth Century	36
III. Manuals for Students	72
IV. The Spread of Ideas in the Middle Ages	92
V. The Latin Literature of Sport	105
VI. Latin Literature under Frederick II	124
VII. The <i>Alchemy</i> ascribed to Michael Scot	148
VIII. Contacts with Byzantium	160
A Canterbury Monk at Constantinople	160
Chrysolanus of Milan	163
Paschal the Roman	165
IX. The Early <i>Artes Dictandi</i> in Italy	170
X. Robert le Bougre and the Beginnings of the Inqui- sition in Northern France	193
XI. The Heresy of Echard the Baker of Rheims	245
XII. Two American Mediaevalists	256
Henry Charles Lea	256
Charles Gross	262
Index of Manuscripts and Libraries	271
General Index	276

LIST OF ABBREVIATIONS

<i>A. H. R.</i>	<i>American Historical Review.</i> New York, 1895- .
<i>Archiv</i> (<i>Neues Archiv</i>)	<i>Archiv</i> (from 1876 <i>Neues Archiv</i>) <i>der Gesellschaft für ältere deutsche Geschichtskunde.</i> Frankfurt, etc., 1820-24; Hanover, etc., 1838- .
<i>B. E. C.</i>	<i>Bibliothèque de l'École des Chartes.</i> Paris, 1839- .
B.M.	British Museum.
B.N.	Bibliothèque Nationale, Paris.
<i>E. H. R.</i>	<i>English Historical Review.</i> London, 1886- .
Hauréau	Barthélemy Hauréau, <i>Notices et extraits de quelques manuscrits latins de la Bibliothèque Nationale.</i> Paris, 1890-93. 6 vols.
<i>H. F.</i>	<i>Recueil des historiens des Gaules et de la France.</i> Paris, 1738- .
MS. lat.	Bibliothèque Nationale, MS. lat.
<i>Mediaeval Science</i> .	C. H. Haskins, <i>Studies in the History of Mediaeval Science</i> , 2d ed. Cambridge, Mass., 1927.
Migne, <i>P. L.</i> . . .	<i>Patrologiae cursus completus</i> , accurate J. P. Migne. Series prima, secunda. [<i>Patrologia Latina.</i>] Paris, 1844-64.
<i>M. I. O. G.</i>	<i>Mittheilungen des Instituts für Oesterreichische Geschichtsforschung.</i> Innsbruck, etc., 1880- .
<i>Notices et extraits</i> .	<i>Notices et extraits des manuscrits de la Bibliothèque Nationale et autres bibliothèques, publiés par l'Institut National de France.</i> Paris, 1787- .
<i>Q. E.</i>	<i>Quellen und Erörterungen zur bayerischen und deutschen Geschichte.</i> Munich, 1856- .
SS.	<i>Monumenta Germaniae Historica. Scriptores.</i> Hanover, 1826- .
<i>S. B.</i>	<i>Sitzungsberichte</i> of the Berlin, Heidelberg, Munich, and Vienna Academies. Unless otherwise stated the philosophisch-historische Klasse is understood.

CHAPTER I

THE LIFE OF MEDIAEVAL STUDENTS AS ILLUSTRATED BY THEIR LETTERS¹

THE early history of universities is one of the most interesting and fruitful of the many questions of origins with which historical inquiry has in recent years been occupied. Through the efforts of Denifle, Rashdall, and others, the subject of mediaeval universities has been lifted out of the realm of myth and tradition and placed upon a solid basis of established fact, so that, while many perplexing problems still remain unsolved, we can now trace with measurable confidence the main outlines of their early development. As yet, investigation has centred chiefly about what may be called the anatomy of the mediaeval university and its external history—its privileges and organization, its relations to king and pope, and similar questions—while much less attention has been given to its inner life and history or to the daily life and occupations of its students, topics manifestly of the greatest importance if we are to form an accurate and comprehensive idea of what a university of the Middle Ages really was. The life of mediaeval students is, however, a large and complex subject, exhibiting wide differences at different times and in different places, and no treatment of it will be in any sense adequate which does not rest on the detailed study and comparison of the conditions at each centre of learning and the changes they underwent at different periods. Such an investigation demands the careful examination of a great variety of sources, literary, documentary, and narrative, which are at present in large measure unpublished and whose value and interest for this purpose are by no means generally understood.²

¹ Revised and expanded from *American Historical Review*, iii. 203–229 (1898).

² For a good example, see Guido Zaccagnini, *La vita dei maestri e degli scolari nello Studio di Bologna nei secoli XIII e XIV* (Geneva, 1926), who draws in part from unpublished material, and prints in an appendix various student letters from a collection of Pietro de' Boattieri. See below, p. 7, note.

On the proper methods to be followed in studying the history of mediaeval civilization, too often treated in a dilettante and uncritical fashion, see the excellent observations of Langlois in the *Revue historique*, lxiii. 246 ff. (1897).

The present chapter is designed to call attention to one class of these sources, student letters, and to point out how far they throw light on the academic conditions of their time.

The intellectual life of the Middle Ages was not characterized by spontaneous or widely diffused power of literary expression. Few were able to write, still fewer could compose a letter, and the professional scribes and notaries on whom devolved the greater part of the labour of mediaeval correspondence fastened upon the letter-writing of the period the stereotyped formalism of a conventional rhetoric. Regular instruction in the composition of letters and official acts was given in the schpols and chanceries, and numerous professors, called *dictatores*, went about from place to place teaching this valuable art—"often and exceeding necessary for the clergy, for monks suitable, and for laymen honourable," as one rhetorician tells us.¹ Beginning with the latter part of the eleventh century we find brief manuals of epistolography in which definite rules of composition are laid down and the order and form of the various parts of a letter fixed.² According to the usual theory there should be five parts

¹ Albert of Samaria, in L. von Rockinger, *Q. E.*, ix. 84.

² On mediaeval treatises on rhetoric and collections of forms in general (*artes dictaminis, summae dictaminis*, etc.), see W. Wattenbach, "Ueber Briefsteller des Mittelalters," *Archiv für Kunde österreichischer Geschichtsquellen*, xiv. 29-94 (an appendix to his article "Iter Austriacum 1853"); Rockinger, *Ueber Formelbücher vom dreizehnten bis zum sechzehnten Jahrhundert als rechtsgeschichtliche Quellen* (Munich, 1855); id., *Ueber Briefsteller und Formelbücher in Deutschland während des Mittelalters* (Munich, 1861); id., *Ueber die ars dictandi und die summae dictaminis in Italien*, S. B. of the Munich Academy, 1861, i. 98 ff.; id., *Briefsteller und Formelbücher des elften bis vierzehnten Jahrhunderts*, in *Q. E.*, ix (the fullest single collection); N. Valois, *De arte scribendi epistolas apud Gallicos Medii Aevi scriptores rhetoresque* (Paris thesis, 1880); A. Gaudenzi, "Sulla cronologia delle opere dei dettatori Bolognesi," in *Bullettino dell' Istituto Storico Italiano*, xiv. 85-174; C.-V. Langlois, "Formulaires de lettres du XII^e, du XIII^e, et du XIV^e siècle," in *Notices et extraits*, xxxiv, xxxv, 1890-96; A. Büttow, *Die Entwicklung der mittelalterlichen Briefsteller bis zur Mitte des 12. Jahrhunderts, mit besonderer Berücksichtigung der Theorieen der Ars dictandi* (Greifswald diss., 1908); G. Manacorda, *Storia della scuola in Italia*, i, 2 (1914), pp. 255-279; C. S. Baldwin, *Medieval Rhetoric and Poetic* (New York, 1928), ch. 8.

An excellent brief survey of the subject is given by H. Bresslau, *Handbuch der Urkundenlehre*, ii, 1 (1915), pp. 225-281, who brings the bibliography down to 1915. On subsequent German publications, see K. Burdach, *Schlesisch-Böhmische Briefmuster aus der Wende des Vierzehnten Jahrhunderts* (Berlin,

arranged in logical sequence. After the salutation—as to which the etiquette of the mediaeval scribe was very exacting, each class in society having its own terms of address and reply—came the exordium, consisting of some commonplace generality, a proverb, or a scriptural quotation, and designed to put the reader in the proper frame of mind for granting the request to follow. Then came the statement of the particular purpose of the letter (the narration), ending in a petition which commonly has the form of a deduction from the major and minor premises laid down in the exordium and narration, and finally the phrases of the conclusion.

The construction of a letter in accordance with this elaborate scheme was, however, possible only for those who had attained some proficiency in the epistolary art; for the ordinary man the writing of a letter meant, not the composition of an original epistle of his own, but the laborious copying of a letter of some one else, altered where necessary to suit the new conditions. It is in this way that the greater part of mediaeval correspondence has come down to us, preserved not as personal mementoes or sources of historical information, but as models for future letter-writers. Frequently these models would be copied and added to until they grew into considerable collections, which might find use as independent compilations of forms or be joined as illustrations to the various current treatises on the art of composition. It must not be supposed that all of the letters contained in these useful collections were actual pieces of correspondence. The authors of rhetorical manuals did not hesitate to compose models of their own or to incorporate exercises of their pupils, possible letters, but not actual ones, and they needed to make large use of such inventions when they proposed, as did many, to provide ‘complete letter-writers’ containing examples suited to every station and condition in life. Where real letters were used the names were often omitted or altered beyond recognition, while sometimes bits of pure fancy—letters to or

1926), p. 7; and in general, see the current notices in the *Neues Archiv*. For the early development of the art in Italy, see Chapter IX, below; and for the reign of Frederick II, Chapter VI.

from Venus, Lent, Rhetoric, the Devil, and similar personages¹—would find their way into these strange compilations.

It is evident that the collections of letters which have come down to us from the Middle Ages differ widely in character and contents and, consequently, in the nature of the information they afford the historian. The correspondence of known individuals has obviously a very different value from a series of anonymous or invented models, and the difficulty of distinguishing the real from the fictitious is one reason for the relatively small use that has been made of these formularies. While, however, the student of diplomatics in his search for authentic and datable acts cannot exercise too great caution in utilizing material of this sort,² the danger to the student of social conditions is much less. To him a possible letter may yield as valuable information as an actual letter, provided he can satisfy himself as to the place and time of its composition and the good faith of its author. He will not seek in these formulae trustworthy details of biography or of political history, but he may well expect them to reflect faithfully, because unconsciously, the conditions of the age in which they were composed, and thus add to the stock of material, none too large at best, available for the history of mediaeval civilization. The models were written to be used; and the more closely they corresponded to the needs of the user the greater the popularity of the *dictator* and his manual. Most of all is this true in models relating to student affairs, since the collections of forms and the treatises on rhetoric were generally put together in the schools and for

¹ See the interesting paper of Wattenbach, "Ueber erfundene Briefe in Handschriften des Mittelalters besonders Teufelsbriefe," in the *S. B.* of the Berlin Academy, 1892, pp. 91-123. Exercises of this sort occur frequently; several are mentioned by Valois, p. 43, from MS. lat. 1093 of the Bibliothèque Nationale, and examples may be seen in Wattenbach, "Iter Austriacum," p. 92; *Fontes rerum Austriacarum*, second series, xxv. 466; *Rendiconti dei Lincei* (1888), iv, 2, p. 404; *Oxford Collectanea*, i. 42-49; Chapter VI, below, pp. 137-139.

² On this question, and particularly on the necessity of examining each collection as a whole before utilizing any of the documents it contains, see Wattenbach, "Iter Austriacum," and "Ueber erfundene Briefe"; Pflugk-Harttung, in *Forschungen zur deutschen Geschichte*, xxiv. 198; Delisle, *Catalogue des Actes de Philippe-Auguste*, p. xxx; Bresslau, ii, 1, pp. 225-226.

the use of scholars—some of the most famous are directly connected with Orleans and Bologna—so that even where they were the product of direct invention they would be likely to represent correctly the life of the academic environment in which they arose.

The number of extant letters and forms of letters which concern the life of the mediaeval student is very great. Of the hundreds of formularies and collections of letters preserved in the larger European libraries, probably the greater number contain some reference to student affairs, and several seem to have been composed with special regard to the needs of students and their parents. All kinds of schools and all parts of Europe are here represented: cathedral schools like Hildesheim¹ and Chartres,² lower schools like those of Arbois³ and Saint-Denis,⁴ and nearly all the important university centres—Bologna, Pavia, Padua, and Naples,⁵ Vienna and Leipzig, Prague and Erfurt and Louvain, Oxford and Cambridge, Salamanca, Toulouse, Montpellier, Orleans, and Paris. An exhaustive critical study of this mass of student correspondence is not at present possible, as the greater part of it is still unpublished and many

¹ H. Sudendorf, *Registrum*, iii. 30–36. Cf. the exercises from Worms, likewise of the eleventh century, in Pflugk-Harttung, *Iter Italicum*, pp. 382–389. For later letters from Hildesheim, see B. Stehle, *Über ein Hildesheimer Formelbuch* (Sigmaringen, 1878), and Otto Heinemann, "Hildesheimer Briefformeln des zwölften Jahrhunderts," in *Zeitschrift des Historischen Vereins für Niedersachsen*, 1896, pp. 79–114.

² *B. E. C.*, 1855, pp. 454 ff.; Wattenbach, "*Iter Austriacum*," p. 44. The schools of Rheims are mentioned in a MS. of the Bodleian (Laud Misc. 569, f. 187) which contains a version of the treatise known as the *Aurea gemma*: 'Remensi studio legum—vel dialectice—alacriter et sane die noctuque adherere.' Rheims is here substituted for the Pavia of the original model of Henricus Francigena (cf. *Archiv*, ix. 632; *Zeitschrift der Savigny-Stiftung für Rechtsgeschichte*, vii, romanistische Abtheilung, 2, p. 66). Cf. Chapter IX, no. 4.

³ MS. lat. 8653A; a student's notebook of the fourteenth century from Arbois in Franche-Comté, containing, besides a collection of proverbs and a vocabulary (published by U. Robert in the *B. E. C.*, xxxiv. 33–46), a number of forms of correspondence composed about the year 1316. Some relate to the schools of Arbois, others to scholars from Besançon studying at Orleans. Cf. *Histoire littéraire*, xxxii. 274–278.

⁴ Letters in MS. lat. 15131, ff. 177–189. According to Hauréau, iv. 267 ff., they were composed by the schoolmaster of Saint-Denis; some of them refer to Orleans.

⁵ *Infra*, Chapter VI, p. 135; *Mélanges Ferdinand Lot* (Paris, 1925), p. 246.

of the manuscripts have not been catalogued, while the sources of the various letters and the relations of the collections to one another have yet in most cases to be determined. The present inquiry was originally restricted to printed works and to the manuscripts of Paris, Munich,¹ London, and Oxford; it has been extended to other collections, as opportunity has arisen, so that the material examined has been sufficient to make the results reasonably representative.²

¹ Student letters of the fifteenth century might form the basis of a special investigation for some one who has easy access to German and Austrian libraries.

² In order to present the results of the study in compact form, only the more significant letters are printed, and many of these only in extract. In general the quotations from manuscripts are published just as they stand in the original; the occasional emendations necessary to render a passage intelligible are noted wherever they have been made. If more than one MS. is mentioned, the text is that of the first. The necessity for compression has prevented any extended discussion of the nature of the different formularies utilized, but the date and place have been noted in each instance. In the case of MSS. cited but once or twice this information is given in connexion with the citation; some collections, however, are referred to so frequently that they can be most conveniently described once for all. They are:

Bernard de Meung, a *dictator* from the region of Orleans, author of an *Ars dictaminis* of the close of the twelfth century which is found in a great number of MSS., often with an appendix of models which vary in the different redactions, although the student letters are much the same throughout. See Langlois in *B. E. C.*, liv. 225 ff. (1893). Cf. particularly A. Cartellieri, *Ein Donau-eschinger Briefsteller: Lateinische Stilübungen des XII. Jahrhunderts aus der Orléans'schen Schule* (Innsbruck, 1898); Delisle, "Notice sur une 'summa dictaminis' jadis conservée à Beauvais," in *Notices et extraits*, xxxvi; Haskins, "An Italian Master Bernard," in *Essays Presented to R. L. Poole*, pp. 211-226.

Rudolfus Turonensis, the supposed author of a *Summa dictaminis* preserved in Munich, Cod. Lat. 6911, and printed in part by Rockinger, *Q. E.*, ix. 95-114, who assigns it to the close of the twelfth century. The student letters relate chiefly to Paris. The incomplete collection in MS. lat. 14069, ff. 181-204 v, contains many of the same forms as the foregoing; the other models concern chiefly the diocese of Mainz and are of the first half of the thirteenth century. The date and authorship of the Munich MS. are discussed by H. Simonsfeld in the Munich *S. B.*, 1898, i. 402-486.

Buoncompagno, professor at Bologna and author of numerous rhetorical works of which the *Antiqua rhetorica*, composed in 1215, is the most important for student affairs. A partial list of MSS. will be found in K. Sutter, *Aus Leben und Schriften des Magisters Buoncompagno* (Freiburg i. B., 1894), p. 24; I have used Munich, Cod. Lat. 23499; MSS. lat. 8654, 7732, and 7731; and B.M., Cotton MS. Vitellius C. viii. The table of contents of the *Antiqua rhetorica* is published by Rockinger, *Q. E.*, ix. 133 ff.; cf. also *M. I. O. G.*, ii. 225-264. The *Rhetorica novissima* has been edited by A. Gaudenzi in the *Bibliotheca*

By far the largest element in the correspondence of mediaeval students consists of requests for money—"a student's first song

iuridica medii aevi, ii. 249-297 (Bologna, 1892). On Buoncompagno's life and writings see the above mentioned monograph of Sutter, and particularly Gaudenzi in the *Bullettino dell'Istituto Storico Italiano*, xiv. 85 ff.

Guido Faba, a younger contemporary and rival of Buoncompagno. On the chronology of his life and writings see Gaudenzi in the monograph just cited. The forms of Faba were less bizarre than those of Buoncompagno and hence were more widely copied and imitated; the collections which contain material on student affairs have been published by Gaudenzi as follows: *Dictamina rhetorica* (1226-27), in *Il Propugnatore*, new series, v. 1, pp. 86-129; v. 2, pp. 58-109; *Epistole* (1239-41), *ibid.*, vi. 1, pp. 359-390; vi. 2, pp. 373-389; *Parlamenti ed epistole* (1242-43), in Gaudenzi, *I Suoni, le forme e le parole dell'odierno dialetto della Città di Bologna* (Turin, 1889), pp. 127-160. I have also examined the copy of the *Parlamenti* in B.M., Add. MS. 33221, which Gaudenzi does not appear to have seen. The models of Faba form the basis of a collection of the fifteenth century from Salamanca in MS. lat. 11386, ff. 55-60, and of a compilation from Orleans now at Avignon (MS. 831).

For the Bolognese *dictatores* of the succeeding period, see Zaccagnini, "Giovanni di Bonandrea dettatore e rimatore e altri grammatici e dottori in arti dello Studio Bolognese," in *Studi e memorie per la storia dell'Università di Bologna*, v. 145-204 (1920); "Le epistole in Latino e in volgare di Pietro de' Boattieri," *ibid.*, viii. 211-248 (1924); and "Grammatici e dettatori a Bologna," in *Il libro e la stampa*, n.s., vi. 113-132 (1912). Cf. G. Bertoni, *Il duecento* (Milan, 1911), pp. 145-150, 278 f., 295 f. Student letters from Bologna occur frequently in Italian manuscripts of the fourteenth century: e.g., Vatican, MS. Ott. lat. 1848 (Ugoninus Eugubinus); Florence, Biblioteca Riccardiana, MS. 669, ff. 288-307 (Iohannes Odonelli vocatus Batista de Sancto Iohanne Marianensi natus sed studii Bononiensis alumnus); University of Pavia, MS. 176, f. 22-22 v. See also J. Klapper, "Ein schlesisches Formelbuch des 14. Jahrhunderts," in *Zeitschrift des Vereins für Geschichte Schlesiens*, lx. 157-177 (1926).

Ponce de Provence, author of a well known *Summa de dictamine*, to which is joined a collection of letters dedicated to the students of Orleans. There are two redactions, dated 1249 and 1252. I have used the following MSS.: MSS. lat. 18595, 8653 (ff. 1-212), 11385; Bibliothèque de l'Arsenal at Paris, MSS. 3807, 1132; B.M., Arundel MS. 514, f. 54 (apparently the best text); Munich, Cod. Lat. 22293, f. 278 (redaction made in Germany in the fourteenth century); Troyes, MS. 1556. There are brief extracts in Munich, Cod. Lat. 16122, f. 11 v-16 v; other MSS. are in Arras (MS. 433), Vienna (MS. 2512), at the Laurentian in Florence (MS. Ashburnham 1545), and in the Archives of Aragon at Barcelona (MS. Ripoll 190). The beginning of a version composed for the students of Toulouse is in MS. lat. 11386, f. 13.

Laurentius of Aquileia (or rather from Cividale in the neighbourhood of Aquileia—cf. J. Loserth in *Neues Archiv*, xxii. 300) was one of the most prominent of the travelling rhetoricians of the type of Ponce de Provence. From his pompous addresses to students we learn that he visited Bologna, Naples, and Paris, while the models mention also Orleans and Toulouse. The student letters are rhetorical and commonplace and are generally adapted as well to

is a demand for money," says a weary father in an Italian letter-writer, "and there will never be a letter which does not ask for cash."¹ How to secure this fundamental necessity of student life was doubtless one of the most important problems that confronted the mediaeval scholar, and many were the models which the *dictatores* placed before him in proof of the practical advantages of their art.² The letters are generally

one university as to another. I have used MSS. lat. 11384 (ff. 1-78 v), 14174 (f. 16 v and foll.), 14766 (ff. 108-122), 16253 (ff. 5 v-26 v); B.M., Harleian MS. 3593 (composed at Paris and dedicated to Philip the Fair). See *Speculum*, i. 102.

The Formulary of Tréguier, composed in the diocese of Tréguier in lower Brittany about 1315 and now in the Bibliothèque Nationale (MS. lat. n.a. 426). The letters relating to students at Orleans have been published by Delisle, *Le formulaire de Tréguier et les écoliers Bretons à Orléans*, in volume xxiii of the *Mémoires de la Société Archéologique et Historique de l'Orléanais* and separately; seven of them are reprinted by M. Fournier in the appendix to the third volume of his *Statuts et privilèges des Universités Françaises*. See also the *Histoire littéraire*, xxxi. 25-35; and René Prigent, "Le formulaire de Tréguier," in *École des Chartes, Positions des thèses*, 1921, pp. 95-97.

MS. lat. 8661, f. 95 and foll., succeeding a copy of Guido Faba and bearing the heading, 'Quedam epistola de curtisia quesita a quodam canonico.' The series of letters has to do chiefly with city affairs in the Romagna and the Marches toward the middle of the thirteenth century. This seems to be the collection alluded to by Gaudenzi, *Bullettino dell'Istituto*, xiv. 174, which he dates *ca.* 1245.

Bibliothèque de l'Arsenal, MS. 854. M. Ch.-V. Langlois kindly called my attention to a number of student letters contained in this MS., ff. 217-244, dating from the early fourteenth century and relating to the University of Toulouse. They are preceded, ff. 214-216, by a group of letters from Orleans which belong to the close of the thirteenth century.

Munich, Cod. Lat. 2649, ff. 34-53. A treatise ('De arte dictandi breviter et lucide . . .') with anonymous models belonging to the end of the thirteenth century and dealing principally with Thuringian affairs.

Tarragona, MS. 6, ff. 17-96. Forms from France, England, and Italy of the time of Gregory IX, with student letters from Orleans and Bologna. I hope soon to publish a special study of this MS.

Archives of the Crown of Aragon, MS. Ripoll 190, ff. 73 v-84 (of 1326). Student letters from Lérida and other places in this region.

Primum carmen scolarium est petitio expensarum, nec umquam erit epistola que non requirit argentum.' Buoncompagno, *Antiqua rhetorica*, in MS. lat. 8654, f. 14 v; MS. lat. 7732, f. 9 v; Munich, Cod. Lat. 23499, f. 8 v.

² There is a decided sameness in the contents of letters of this kind, and only the most interesting are given here. Examples of more commonplace types may be found in Rockinger, *Q. E.*, ix. 71, 81, 372, 487; id., *Ueber Briefsteller*, p. 40; Guido Faba, *Dictamina rhetorica*, nos. 1, 22, 24, 63, *Epistole*, nos. 66 and 67, *Parlamenti ed epistole*, no. 83; Delisle, *Le Formulaire de Tréguier*,

addressed to parents, sometimes to brothers, uncles, or ecclesiastical patrons—a much copied exercise contained twenty-two different methods of approaching an archdeacon on this ever delicate subject.¹ Commonly the student announces that he is

nos. 1, 12, 16, 19; S. Günthner, *Geschichte der literarischen Anstalten in Baiern*, i. 217, 230; L. Biondi, *Le Dicerie di Ser Filippo Ceffi* (Turin, 1825), p. 65. Cf. also the authentic letters of Gui de Bazoches from Montpellier, *Neues Archiv*, xvi. 76, 77.

The manner of constructing one of these letters may be seen by the following extract from an anonymous treatise in the British Museum (Add. MS. 18382, f. 59): 'Assumatur ergo tale tema, quod quidam Parisius insistens studiis et nimis pauperrime vivens litteras dirigat matri sue ut in rebus necessariis sibi provideat. Assumendum est *proverbium* in hunc modum: Mater moribus re-dolet novercam que filii non sublevat egestatem. *Nar.*: Diu est quod Parisius studiis inservivi et nummos meos in usus neccessarios iam expendi. *Petitio*: Mihi igitur necessaria propinetis et sic egestatem meam expensis minimis munere sublevetis. Ultimum *proverbium*: Domesticum est enim matri ut filio subveniat indigenti.' A similar example is found in Munich, Cod. Lat. 2649, f. 38 v, printed in a slightly different form by Rockinger, *Ueber Briefsteller*, p. 40. See also Langlois, *Formulaires de lettres*, iv. 14. The rhetorical elaboration of a simple letter of this sort is illustrated in Rockinger, *Q. E.*, ix. 487.

This commonplace of mediaeval student existence is also treated in verse. See *Carmina Burana*, p. 50; *Anzeiger für Kunde der deutschen Vorzeit* (1873), xx. 8; and particularly the poetical *dictamina* of Matthew of Vendôme, published by Wattenbach in the *S. B.* of the Munich Academy for 1872, pp. 561–631, which contain much interesting information on the student life of the twelfth century. Another begging letter of the same author is in M. Haupt's *Exempla poesis Latinae Medii Aevi* (Vienna, 1834), p. 31.

¹ Published by H. Bärwald in *Fontes rerum Austriacarum*, second series, xxv. 455–464, from a fourteenth-century MS. in Vienna. The earliest occurrence of this exercise that I have found is in a treatise in the Bibliothèque Nationale, MS. lat. 16252, ff. 39–41 v, composed, it would appear from the names on f. 34 v, between the years 1243 and 1249. Other copies are in MS. lat. 14357, f. 129 v (fourteenth century), and Munich, Cod. Lat. 5319, f. 182 v (fifteenth century).

Petitions to ecclesiastical dignitaries are usually either requests from students for benefices or petitions from beneficed priests for leave of absence for purposes of study, such leave to carry with it, of course, the enjoyment of the fruits of the living. Examples of such letters and the replies are common: e.g., Guido Faba, *Epistole*, nos. 25, 26; *Dict. rhet.*, nos. 88, 89; Historical MSS. Commission, *Fourth Report*, pp. 380, 394; *Codex diplomaticus Silesiae*, v. 161; Langlois, *Formulaires de lettres*, iv. 7; *Register of Archbishop Peckham* (Rolls Series), i. 3, 8; *Registrum Palatinum Dunelmense* (Rolls Series), iii. 307; Cartellieri, *Ein Donaueschinger Briefsteller*, nos. 257, 258. One poor scholar at Paris seeks to regain the favour of the prior of Canterbury by telling him about a highly useful book which he is so fortunate as to possess, "a summary of canon and civil law, called *tabula iuris*," and most jealously guarded by the Minorites. Historical MSS. Commission, *Various Collections*, i. 278 f. (1901).

at such and such a centre of learning, well and happy but in desperate need of money for books and other necessary expenses. Here is a specimen from Oxford, somewhat more individual than the average and written in uncommonly bad Latin:¹

B. to his venerable master A., greeting. This is to inform you that I am studying at Oxford with the greatest diligence, but the matter of money stands greatly in the way of my promotion, as it is now two months since I spent the last of what you sent me. The city is expensive and makes many demands; I have to rent lodgings, buy necessities, and provide for many other things which I cannot now specify. Wherefore I respectfully beg your paternity that by the promptings of divine pity you may assist me, so that I may be able to complete what I have well begun. For you must know that without Ceres and Bacchus Apollo grows cold. . . .²

A more permanent provision is suggested by a Paris student, who wants to receive from Saint-Victor's ten loaves of bread a week, besides a mattress and sixpence.³ Sometimes the supplies needed—books and parchment, clothing, linen, bedding, etc.—are sought directly from home.⁴ In an interesting set of

¹ The text of the formularies of the Middle Ages is frequently quite corrupt; in many cases it is clear that the copyists did not understand the meaning of what they wrote. Langlois, *Formulaires de lettres*, v. 26, note.

² 'Venerabili domino suo A., B. salutem. Noverit universitas vestra quod ego Oxonie studeo cum summa diligencia, sed moneta promociocionem meam multum impedit. Iam enim due mense transacte sunt ex quos mihi misisti expendidi [!]. Villa enim cara est et multa exigit; oportet hospicium conducere et utensilia emere et de multis aliis extra predicta que ad presens non possum nominare. Quare paternitati vestre pie suplico quatinus divine pietatis intuitu mihi succuratis, ut possim includere quod bene incoavi. Sciatis quod sine Cerere et Bacone frigescit Apollo (cf. Terence, *Eunuchus*, iv, 5, 6). Quare tum facite ut vobis mediantibus incoatum bene possim terminare. Vale.' B.M., Add. MS. 8167, f. 104 (collection dating from 1220 or soon after). Cf. H. Kalbfuss, "Eine Bologneser Ars Dictandi des XII. Jahrhunderts," in *Quellen und Forschungen*, xvi, 2, p. 33, nos. xlvi, xlix (Bologna).

³ Angers, MS. 312, f. 18 v.

⁴ 'Linea mea vestimenta simul lectisternia, pro studii oportunitate a vobis mihi longe procurata, iam a vetustate temporis corosa tendunt annihilari,' says a student at Vienna, and he asks for others, in order that 'me honesto more cum ceteris bursalibus valeam conservare'; Munich, Cod. Lat. 11799, f. 121 (fifteenth century). 'Mutatoria ac pelles' is the demand in the formulary of Hugh of Bologna (*Neues Archiv*, xxii. 300), while in the poetical *dictamina* of Matthew of Vendôme (ed. Wattenbach, p. 624) the student begs:

Delegare mihi mantilia, lintea, bracas

Accelera, matrem talia dona decent.

The needs of a student at Paris are thus stated in a monastic letter-writer

letters written from Chartres at the beginning of the twelfth century and quite unspoiled by the phrases of the rhetoricians, we find two brothers asking their mother for thick lambskins for winter clothing, parchment for making a psalter, their father's great boots, and some chalk, good chalk, since theirs is worth nothing.¹ A canon of Rouen sends his nephews ten sous, ten ells of linen cloth, a split ham, and a measure of white peas.² A Vienna student who writes to his father N., citizen of Klosterneuburg, that he has spent his money for books and other things that pertain to learning, receives in reply "by this present messenger ten Rhenish gulden, seven ells of cloth for a cloak, and one pair of hose."³

If the father was close-fisted, there were special reasons to be urged: the town was dear—as university towns always are!—the price of living was exceptionally high owing to a hard winter,⁴ a threatened siege,⁵ a failure of crops,⁶ or an unusual number of

of the fourteenth century at Troyes (MS. 1992, f. 67): 'Parisiensis equidem scholaris non ad victum solum denariis indiget, sed ad multa, sicut libros emendos, ad exemplaria conducenda, ad pergamenum ceteraque necessaria que conveniunt ad notandum.'

¹ B. E. C., 1855, pp. 454-455. Cf. A. Clerval, *Les écoles de Chartres au Moyen Âge* (Chartres, 1895), pp. 194, 195, 216-218; and R. L. Poole, "The Masters of the Schools at Paris and Chartres in John of Salisbury's Time," in *E. H. R.*, xxxv. 321-342 (1920). The elder brother, Arnaud, was dean of the chapter, and the younger, Jacques, was studying in the cathedral school.

² A. Luchaire, *Études sur quelques manuscrits de Rome et de Paris* (Paris, 1899), p. 120, no. 71.

³ 'Dem allerliebsten so ich in auf erden hab, dem N. purger zu Newburg. . . . Das gelt das ir mir geben habt, das hab ich nun vertzert und hab mir auch davon pücher gekauft und auch ander ding das zu der lernung gehört. . . .'

'Meinem hertzen lieben Sun N., studenten zu Wien. . . . Darumb, lieber Sun, sende ich dir pei disem gegenwartige poten x gulden reinisch und vii ellen tuch zu einem mantl und j parhosen.' Munich, Cod. Lat. 11799, ff. 4-5 (a brief collection of German *dictamina*, ca. 1447).

⁴ 'Pro yemali frigore magis expendidi.' B.M., Harl. MS. 4993, f. 19 (a brief treatise, with examples, by an Oxford scholar, Thomas Sampson, dating in its present form from 1420 or thereabouts).

⁵ 'Cum propter imperatoris adventum, quem Bononienses trepidanter expectant, Bononia facta sit cara in victualibus ultra modum.' Guido Faba, *Epist.*, no. 6. Cf. Thymo of Erfurt in B.M., Arundel MS. 240, f. 123. So a foreign student in France asks for money at once because none can reach him after Easter, when war with England is to begin. Munich, Cod. Lat. 96, f. 38 v.

⁶ 'Per grandinem et per alias tempestates importunas annone per totam

scholars;¹ the last messenger had been robbed² or had absconded with the money;³ the son could borrow no more of his fellows or of the Jews; he has been ill with the cold, and tempted to run away;⁴ the cold is so great that he cannot study at night;⁵ and so on. The student's woes are depicted

Thuringiam (MS. Thuringia) perierunt, ex quo caristia invaluit satis magna.' Munich, Cod. Lat. 14660, f. 71 v: letter from Erfurt in a Silesian formulary of the fourteenth century. Cf. M. Unterlauff in *Zeitschrift für Geschichte und Alterthum Schlesiens*, xxvii. 310 ff. (1893). 'Propter ingruentem caristiam temporis que in partibus supra modum invaluit gallicanis, non solum omnem pecuniam quam mihi misistis utiliter iam expendi, sed etiam libros meos coactus sum pingnori obligare nomine usurarum.' Vienna, MS. 637, f. 74 (Orleans, saec. xiii).

¹ So at Laon early in the twelfth century, according to the letter of an Italian student, 'multis clericis Laudunum adventantibus, vix inveniri valde cara poterunt.' *B. E. C.*, 1855, p. 466. A similar statement regarding Paris toward the close of the twelfth century is in B. Pez, *Thesaurus anecdotorum*, vi, 1, col. 427. In the *Dictamina rhetorica* of Guido Faba, no. 38, the citizens of Bologna are accused of concealing the abundance which God has given them and thus creating an artificial scarcity.

Uncommon dearthness is a frequent excuse and comes from every quarter. Thus, besides the passages just cited, we find for Bologna Guido Faba, *Dict. rhet.*, no. 1; for Paris, Laurentius of Aquileia in MS. lat. 16523, f. 16, and Rockinger, *Q. E.*, ix. 961; for Toulouse, Laurentius in MS. lat. 11384, f. 44, and MS. lat. 14174, f. 26 v; for Vienna, Munich, Cod. Lat. 5667, f. 188 (MS. of the year 1404); for Faenza, an extract in *Bullettino dell'Istituto Storico Italiano*, xiv. 173; for Arbois in Franche-Comté, MS. lat. 8653A, f. 1 v; for Oxford, B.M., Harleian MS. 670, f. 26 (fifteenth century); for Lérida, Archives of the Crown of Aragon, MS. Ripoll 190, f. 74; etc. In how many cases a real scarcity existed it would be impossible to say; Gaudenzi, *Bullettino dell'Istituto Storico Italiano*, xiv. 131, thinks the model of Guido Faba (*Dict. rhet.*, no. 1) refers to the severe famine of 1226-27.

² Munich, Cod. Lat. 22373, f. 207 (collection of the fifteenth century relating to Prague).

³ 'Reverendo patri suo ac per omnia merito diligendo A. suus filius studens Parisius, filialis dilectionis constanciam et utriusque vite salutem. Paternitati vestre reverende notum esse cupio quod cum nuncios Parisius mihi destinaveritis cum equis et aliquanta pecunia [MS. aliquantam pecuniam], ex inoptato eventum rerum se subtraxit unus nunciorum cum .x. maricis et cum equo qui fuit ad valorem estimatus .c. maricarum, qui, ut dicitur, postmodum interceptus fuit. Unde sicut multis positus anxietatibus, cum non possim habere Parisius credenciam aliquam, supplico benignitati vestre quatinus alium equum et pecuniam mihi sine obstaculo dilacionis aliquam mihi transmittatis, ne tanquam feminam oporteat effugere et tanquam scirram vagari me contingat aliqua dierum ad confusionem meam et vestrum opprobrium in vestra facie comparere.' MS. lat. 14069, f. 194 v.

⁴ Luchaire, *Études*, p. 135, no. 142.

⁵ 'Tantum frigus nunc Cremone intenditur quod sine lessione pestifera noc-

in moving language, with many appeals to paternal vanity and affection. At Bologna we hear of the terrible mud through which the youth must beg his way from door to door, crying, "O good masters," and receiving nothing save a few scraps of refuse from the townsfolk and a "God go with you!" from his fellow students.¹ Another student blows on his frosty fingers while he remarks that it is two years since he has tasted wine, washed his face, or trimmed his beard.² In an Austrian formulary a scholar writes from the lowest depths of prison, where the bread is hard and mouldy, the drinking-water mixed with tears, the darkness so dense that it can actually be felt.³ Another lies on straw with no covering, goes without shoes or shirt, and eats he will not say what—a tale designed to be addressed to a sister and to bring in response a hundred sous *tournois*, two pairs of sheets, and ten ells of fine cloth, all sent without her husband's

turno tempore non surgo in libris vigilare nimia paucitate pannorum.' *Floralius* from Modena, 1284, in the Vatican, MS. Vat. Lat. 6297, f. 43 v.

¹ 'Cogit me anxietas eximie paupertatis et abhominabilis inopia me compellit exordium promere lacrimosum et narrationum seriem pudorosam. Nam cum deberem lectioni vacare et studiosius insistere scholasticis disciplinis, per hostia scolarium clamito mendicando. Insisto quippe reiterans aliquando vigesies, O boni domini, vel huiusmodi, et non reporto nisi Vade cum Deo. Festino postmodum ad hostia laicorum, a quibus frequentius repellor cum clamoribus et garitu, et si quando dicitur, Expecta, exhibetur mihi panis de triplici mixtura quem canes comedere perorrescunt propter aristas spelte ibidem insertas. Olera quidem repudiata, cuticule, nervi qui commasticari non possunt, mucilagines carnum, abiectiones intestina, mice spinose, rapa, legumina contemptibilia, cibaria et vina dampnata sepius mendicantibus exhibentur. Discurro de nocte per civitatem, in manu dextra baculum et in sinistra parasidem [other MSS.: piscidem, pixidem], peram iuxta cingulum et cucurbitam ad modum scarsellule deferendo, baculo canibus resistendo, sed piscis oleribus, pera panibus, et cucurbita potibus deputatur. Cado frequenter in lutum Bononiense, cuius fetor est odori sepulcrorum similis, et ita fedatus ad hospitium revertor satisfaciens latranti stomacho de perceptis. . . .' Buoncompagno, *Antiqua rhetorica*, in Munich, Cod. Lat. 23499, f. 9 v. Also in MS. lat. 8654, f. 16; MS. lat. 7732, f. 10 v; B.M., Cotton MS. Vitellius C. viii, f. 96 v. Letters on the same folios of these MSS. describe the misfortunes of another begging student and of one who is lying in the hospital. The example cited is a good specimen of Buoncompagno's style; manifestly his descriptions are not to be taken as entirely typical. Cf. Zaccagnini, *Studio di Bologna*, p. 53. The mud of Bologna is also referred to by Matthew of Vendôme, ed. Wattenbach, p. 627.

² Buoncompagno, as in the preceding note.

³ *Summa* of Petrus de Hallis, ca. 1337, in *Fontes rerum Austriacarum*, second series, vi. 117.

knowledge.¹ In another form of appeal to the sister's mercy the student asks for the loan of twenty sous from her, since he has been so short a time at school that he dare not make the demand of his parents, "lest perchance the amount of his expenses displease them."²

To such requests the proper answer was, of course, an affectionate letter, commending the young man's industry and studious habits and remitting the desired amount.³ Sometimes the student is cautioned to moderate his expenses—he might have got on longer with what he had,⁴ his uncle had less than an obol a day, and is still alive,⁵ he should remember the needs of his sisters,⁶ he ought to be supporting his parents instead of trying to extort money from them,⁷ etc. One father at Besançon

¹ 'Soror discrepta [i.e., discreta] et callida suum debet maritum et parentes etiam ad amorem sui fratris indigentis et subsidium inflammare. Soror dulcis, tua noscat dilectio quod ego sum in tali studio sanus et lectus [i.e., laetus] per Dei gratiam et bene addisco et facio factum meum. Multas enim paupertates substoneo: iaceo quidem in paleis sine linteaminibus et incedo discalciatus et male vestitus sine camisia, et solum de pane non loquor, de quo edigeo non possum reficere ventrem meum [the Arsenal MS. has: de quo non audeo ventrem meum satiare]. Precor igitur, soror dulcissima, ut diligenter et subtiliter tuum ducas maritum in quantum poteris ut iuvamen aliquod mihi mittat.' The sister cannot express her distress over his poverty; she has done what she could and got together 'c. solidos Turonensium et duo paria linteaminum et .x. ulnas de subtili tela, que omnia tibi dirigo per talem hominem presencium portatorem. Cave tamen cum summa diligentia ne hoc possit ad mei mariti noticiam pervenire, nam si hoc sciret mortua essem penitus et destructa. Ipse enim, prout credo firmissime, ad instanciam mei tuam in brevi tibi pecuniam destinabit.' Ponce de Provence in B.M., Arundel MS. 514, f. 76 v. Also in MS. lat. 18595, f. 22 v; MS. lat. 8653, f. 13; MS. lat. 11385, f. 73 v; Bibliothèque de l'Arsenal, MS. 3807, f. 61 v; Troyes, MS. 1556, f. 20.

² 'Ne mearum expensarum quantitas eos forte tedio afficiat.' Munich, Cod. Lat. 6911, f. 54 v.

³ Examples in Rockinger, *Ueber Briefsteller*, p. 41; Guido Faba, *Dict. rhet.*, no. 2; Delisle, *Formulaire de Tréguier*, nos. 2, 5, 14, 17.

⁴ 'Debuisses quidem per biennium primo fecisse moram in scholis antequam tam importune subsidia postulares.' To which the student replies: 'Qui remorantur domi iudicant de absentibus prout volunt, et dum sedent super ollas carnum in saturitate panem edentes illorum nullatenus recordantur qui fame, siti, frigore, ac nuditate opprimuntur in scholasticis disciplinis.' Buoncompagno in MS. lat. 8654, f. 14 v; MS. lat. 7732, f. 9 v; Munich, Cod. Lat. 23499, f. 8 v.

⁵ Luchaire, *Études*, p. 108, cf. 117.

⁶ Matthew of Vendôme, ed. Wattenbach, p. 622.

⁷ 'Verecundari debet adultus et discretus filius cum a patre suo pauperimo

—who quotes Horace!—excuses himself because of the failure of his vineyards, another, because of the drop in prices due to overproduction.¹ It often happened, too, that the father or uncle has heard bad reports of the student, who must then be prepared to deny indignantly all such aspersions as the unfounded fabrications of his lying enemies.² If his parents could only see his tattered clothing and torn shirt, they would know that he did not spend his substance on royal raiment and costly furs in the pursuit of ladies' love.³ Here is an example of paternal reproof taken from an interesting collection relating to Franche-Comté:

To his son G. residing at Orleans P. of Besançon sends greeting with paternal zeal. It is written, 'He also that is slothful in his work is brother to him that is a great waster.' I have recently discovered that you live dissolutely and slothfully, preferring license to restraint and play to work and strumming a guitar while the others are at their studies, whence it happens that you have read but one volume of law

credit et nititur pecuniam extorquere, cui deberet potius in necessariis providere.' Munich, Cod. Lat. 22293, f. 280 v. Cf. also f. 281; and MS. 2775 of the Bibliothèque Sainte-Geneviève, f. 270 v.

¹ 'P. civis Bisuntinus suo precordiali filio G. in Montepessulano studenti, salutem et cure paternalis affectum.

Insani sapiens nomen fert, equus iniqui,

Ultraquam satis virtutem si petat ipsam,

sicut Horatius asseverat [*Epistles*, i. 6, 15]. Ut attumavi satis esse tibi sumptus hucusque suspedicavi pectore letabundo, sed hoc anno ymbres et uredo primitus, demum importune ulucres [i.e., volucres] vignearum fructus partibus istis adeo deteraserunt quod in tribus vigneis sportas duntaxat dovam in qualibet sigillatim collegi. Meos autem convicianeos par sterilitas reddidit consternatos. Hac ratione non est michi suppetens qua te valeam relevare, nisi ultra quam satis immergar usurarum voragine, quo facto videar insanire. Igitur faciens de necessitate virtutem sustineas quousque nobis pinguiores Omnipotens largiatur fortunam.' MS. lat. 8653A, f. 9 v. In a formulary from Toulouse, on the other hand, the parents cannot send money because of the low prices of produce: 'Cum de blado et vino nostro propter multitudinem que nunc est nullam poterimus pecuniam extorquere.' Arsenal, MS. 854, f. 232.

² 'Mentiti sunt per medios dentes qui de me talia predicaverunt,' says a student in the formulary of Ponce de Provence. B.M., Arundel MS. 514, f. 75; Munich, Cod. Lat. 22293, f. 282 v; MS. lat. 18595, f. 21. Specimens of the conventional reproof and denial may be seen in Guido Faba, *Dict. rhet.*, nos. 3, 4; *Epist.*, nos. 8, 9. In *Epist.* 8, the father calls down on the son's head "the maledictions of the Old and New Testaments." Cf. *Mélanges Ferdinand Lot*, p. 246; *Mélanges Pirenne*, p. 206, no. 15; Zaccagnini, pp. 210, 216.

³ *Quellen und Forschungen*, xvi, 2, p. 33 (1914).

while your more industrious companions have read several. Wherefore I have decided to exhort you herewith to repent utterly of your dissolute and careless ways, that you may no longer be called a waster and that your shame may be turned to good repute.¹

In the models of Ponce de Provence we find a teacher writing to a student's father that while the young man is doing well in his studies, he is just a trifle wild and would be helped by judicious admonition. Naturally the master does not wish it known that the information came through him, so the father writes his son:

I have learned—not from your master, although he ought not to hide such things from me, but from a certain trustworthy source—that you do not study in your room or act in the schools as a good student should, but play and wander about, disobedient to your master and indulging in sport and in certain other dishonourable practices which I do not now care to explain by letter.²

The arrival of students at school is frequently the occasion of letters to parents describing their new surroundings, as in the following illustration, which comes from Moravia:

After my departure from your gracious presence the circumstances of my journey continued to improve until by divine assistance I arrived safely in the city of Brünn, where I have had the good fortune to obtain lodgings with a certain citizen who has two boys in school and provides me with food and clothing in sufficient amount. I have also found here an upright and worthy master, of distinguished reputation and varied

¹ 'P. Bisuntinus G. filio suo Areliensis—*vel* Aurelianus—residenti, salutem cum zelo paternali. Scriptum est, Qui mollis est et dissolutus in opere suo frater est sua opera dissipantis [Proverbs, xviii. 9]. Te nuper intellexi <te> molliter et dissolute adeo vivere ut petulanciam plus celibatu diligas et ludicra seriis anteponas, nec non cum ceteri lucubrationi vacant in cithara diceris concrepare; unde contingit unum volumen legeris, quamquam tui choetanei plura condecensius legerint commentaria [MS. comitaria]. Igitur te duxi presentibus exortandum quod [MS. qq] a tuis dissolutionibus insolenciis totaliter respiscas, quod non dicaris bonorum dissipator sed in bonum nomen tua possit ignominia commutari.' MS. lat. 8653A, f. 9; a similar letter is on f. 13 v.

² 'Non per tuum magistrum, qui tamen non deberet mihi talia celare, sed per certam relacionem quorundam, didici quod tu non studes in camera tua nec in scholis sis ut bonus scholaris solet facere, sed extra vagabundus efficiaris atque lusor et tuo magistro non obediens et rebellis, indulgens ludis et quibusdam aliis inhonestis que ad presens nolo per litteras explicare.' Munich, Cod. Lat. 22293, f. 278 v; Cod. Lat. 16122, f. 11 v; MS. lat. 18595, f. 16 v. Cf. Buoncompagno, Munich, Cod. Lat. 23499, f. 4 v.

attainments, who imparts instruction faithfully; all my fellow pupils, too, are modest, courteous, and of good character, cherishing no hatred but giving mutual assistance in the acquirement of knowledge and in honour preferring one another.¹

So a student from Paris writes his fair cousin at Ghent that he is well and happy, living with studious companions, and working industriously under a master of good life and suitable attainments.² The following, from Orleans, is more fresh and original:

To their very dear and respected parents M. Martre, knight, and M. his wife, M. and S. their sons send greetings and filial obedience. This is to inform you that, by divine mercy, we are living in good health in the city of Orleans and are devoting ourselves wholly to study, mindful of the words of Cato, "To know anything is praiseworthy," etc. We occupy a good and comely dwelling, next door but one to the schools and market-place, so that we can go to school every day without wetting our feet. We have also good companions in the house with us, well advanced in their studies and of excellent habits—an advantage which we well appreciate, for as the Psalmist says, "With an upright man thou wilt show thyself upright," etc. (Psalms, xviii. 25). Wherefore lest production cease from lack of material, we beg your paternity to send us by the bearer, B., money for buying parchment, ink, a desk, and the other things which we need, in sufficient amount that we may suffer no

¹ 'Postquam discessi a vestra facie graciosā, divino favente (MS. vavente) auxilio, meum iter <convertitur> de bono in melius se disposuit donec Brunnen-sis civitas incolomem me recepit. Ibidem apud quendam civem qui duos habet pueros scholas frequentantes sospes et cum gaudio sum locatus, qui sufficienter vestes et victualia aministrat; ibidem etiam inveni magistrum probum et honestum, suos subditos fideliter informantem, honestatis titulo ac diversis facultatibus presignitum. Preterea socii qui se in suis scholis recipiunt omnes sunt curiales, humiles, et honesti, inter quos nullum latet odium sed mutuo scientiis proficiunt et honoribus se exaltant.' Munich, Cod. Lat. 2649, f. 49; on f. 44 a student gives a similar account of his surroundings at Erfurt. The following, of much the same character, is from Buoncompagno: 'A vobis licentia impetrata et recepto benedictionis vestre munere, cepi ad studium properare sicque cum successive fortune incremento intravi Bononiam, ubi a sociis et amicis fui cum ingenti alacritate receptus et ab eis multipliciter honoratus. Postmodum vero conduxi hospitium, preelegi mihi magistrum et socios competentes, cum quibus lego et proficio iugiter in moribus et doctrina.' Munich, Cod. Lat. 23499, f. 5; MS. lat. 8654, f. 8. See also Guido Faba, *Epist.*, no. 54; and Ponce de Provence in Munich, Cod. Lat. 22293, f. 279, and MS. 3807 of the Arsenal, f. 57 v.

² N. de Pauw, "La vie intime en Flandre au moyen âge d'après des documents inédits," no. 11, in *Bulletin de la Commission Royale d'Histoire*, lxxxii. 34 (Brussels, 1913).

want on your account (God forbid!) but finish our studies and return home with honour. The bearer will also take charge of the shoes and stockings which you have to send us, and any news as well.¹

The student's journey and arrival were not always so prosperous, and the famous Bolognese *dictator* Buoncompagno devotes a chapter of his collection to the accidents that may befall one on the way to the university.² Attacks from robbers seem to have been the chief danger: the scholar was hastening to Bologna, for the love of letters, but in crossing the Alps he was attacked by highwaymen, who took away his books, horses, clothing, and money, so that he has been obliged to remain in a neighbouring monastery till help can reach him.³ So a Northern student on his way to Paris is stripped and left bound by four youths in clerical habit with whom he had fallen in upon the road.⁴ In other instances the robbery, of fifteen marks of silver and grey furs, takes place in the forest of Bologna,⁵ or in the

¹ MS. lat. 1093, f. 82 v, published by Delisle in the *Annuaire-Bulletin de la Société de l'Histoire de France*, vii. 149-150, 141 (1869). There is a reprint in the *Archivio della Società Romana di Storia Patria*, xi. 396 (1888).

With these may be compared such descriptions of Paris as are given by a German student at the beginning of the twelfth century (Jaffé, *Bibliotheca rerum Germanicarum*, v. 285); by Gui de Bazoches about fifty years later (*Bulletin de la Société de l'Histoire de Paris et de l'Île-de-France*, iv. 38; cf. *Neues Archiv*, xvi. 72); and by John, later archbishop of Prague, in 1375 or 1376 (*Archiv für österreichische Geschichte*, lv. 385).

² See the table of contents in Rockinger, *Q. E.*, ix. 134.

³ 'Eram in procintu itineris et Bononiam properabam ob amorem studii litteralis, unde si essent in homine vie illius meum duxissem propositum ad effectum; sed comparuit evidens impedimentum quo cogor a proposito resilire. Sane cum essem in transitu Alpium occurrerunt quidam ratopres [*sic*: MS. lat. latrones] qui peccuniam, libros, vestes, et equos mihi penitus abstulerunt, me nudum, verberatum, et vulneratum, lugubrem et abiectum in solitudinem dimittentes. Postmodum autem diverti ad quoddam monasterium, in quo tandiu proposui commorari donec quid mihi sit agendum vestris litteris intimetis.' Buoncompagno in Munich, Cod. Lat. 23499, f. 5; MS. lat. 8654, f. 8; B.M., Cotton MS. Vitellius C. viii, f. 93 v. In Matthew of Vendôme (ed. Wattenbach, p. 587) the same fate befalls a student of medicine on his way to Salerno.

⁴ B.M., MS. Royal 8 A. vi, f. 25 (a brief collection of student letters from Paris in a hand of the late thirteenth century).

⁵ 'Mirifice divinitatis nutu Vercellensis ecclesie religioso antistiti B. humillimus clericus . . . Cum enim nuper preter parentum velle filosofice discende liberalitatis gratia versus Bononiam iter incepissem et procuratorem habens itineris Bononiensium silvam ingressus essem, supervenientes quidam milites

highway near Aosta.¹ Sometimes advantage was taken of the greater security of forwarding by Italian merchants visiting the fairs of Champagne,² or Italian pilgrims to Santiago de Compostela.³ Even a journey home from Bologna to Florence was not without its dangers, unless undertaken with a considerable armed company.⁴

Once safely arrived at a centre of learning, mediaeval students were slow to quit academic life.⁵ Again and again they ask permission to have their term of study extended; war might break out,⁶ parents or brothers die, an inheritance have to be divided,⁷ but the student pleads always for delay. He desires to "serve longer in the camp of Pallas";⁸ in any event he

de contiguis castrorum finibus ad depredandum, sicut re vero venerant habiles, me cum prefato itineris tutore ceperunt et cuncta seriatim investigantes cetera violenter abstulerunt .xv. argenti marcas, pelles grisias et xx nummorum sodilos [sic], exceptis subpellectilibus plurimis et diversis que scolares in terra extranea victuros portare cognoscitis.' *Precepta prosaici dictaminis secundum Tullium*, of the twelfth century, from Northern Italy, in B.M., Add. MS. 21173, f. 71 v; see below, Chapter IX, no. 14.

¹ 'Consultatione vestra Bononiam [MS. Bononiam] profiscebar iuris scientiam adepturus, verum in strata publica [MS. plubica] vispilliones me spoliaverunt, libros et pecuniam cum vestibus absportantes, unde pauperculus regressus sum ad Augustam ubi cum robore miserabili mendicitate sustentor.' MS. lat. 8653A, f. 3 v.

² 'Carissimo patri suo Nicholao de tali loco Martinus filius eius Bolonie moram faciens veram in Christo salutem. . . . Poscens humiliter quatinus per Gracianum mercatorem Bolonie satis expertum fidelitate qui nuper ad nundinas Latiniaci viam arripuit denarios ad sufficientiam, si placeat, transmittatis, mihi clausis scribentes litteris quanta summa pecunie dicto commissa fuerit mercatori.' Tarragona, MS. 6, f. 34.

³ Chapter IX, no. 7.

⁴ Zaccagnini, *Studio*, pp. 207-208.

⁵ Buoncompagno even tells of one who had spent twenty-eight years in study: 'Ecce iam xxviii. annorum spacium est elapsum quod te dedicasti scholasticis disciplinis.' Munich, Cod. Lat. 23499, f. 13; MS. lat. 8654, f. 21 v; MS. lat. 7732, f. 14 v.

⁶ Guido Faba, *Dict. rhet.*, no. 53, *Epist.*, no. 84. Cf. Petrus de Hallis in *Fontes rerum Austriacarum*, second series, vi. 116; and *Bullettino dell'Istituto Storico Italiano*, xiv. 169.

⁷ Munich, Cod. Lat. 2649, f. 50; Cod. Lat. 96, f. 38; Cod. Lat. 14708, f. 58, 58 v; *Zeitschrift für die Geschichte des Oberrheins*, n.s., xi. 34; Guido Faba, *Dict. rhet.*, nos. 15, 16.

⁸ 'In castris Paladis disposui longiori spatio militare.' MS. lat. 866r, f. 98 v. So the nephews of Wolfgang of Altaich ask for more time (Berlin, MS. Lat. oct. 136, f. 112 v), and a benefited student promises to return to his parish in the spring (Guido Faba, *Dict. rhet.*, nos. 84, 85).

cannot leave before Easter, as his masters have just begun important courses of lectures.¹ A scholar is called home from Siena to marry a lady of many attractions; he answers that he deems it foolish to desert the cause of learning for the sake of a woman, "for one may always get a wife, but science once lost can never be recovered."² In a similar case another student holds out against the charms of a proposed wife, who, "though she is dark, is clever and of placid demeanour and distinguished bearing, wise and noble, and moreover has a considerable dower and belongs to an influential family."³ A married student is reminded that he has remained in the schools longer than the stipulated two years; his wife is sure he has been studying in some other *Code*, and proposes to read a little in the *Digest* on her own account!⁴ Sometimes, however, the student is taken ill and writes for money and an easy-going horse to take him home,⁵ while occasionally he discovers his inability to learn and

¹ 'Ad presens te non possum presencionaliter consolari nec ante futurum Pascha tuam presenciam visitare, quia magistri quorum lectionibus me subiunxi quosdam libros mihi utiles legere incepterunt, quorum neglectio meo studio generaret irrecuperabile detrimentum.' Munich, Cod. Lat. 2649, f. 50 v; cf. Cartellieri, no. 246.

² Guido Faba, *Parlamenti ed epistole*, nos. 16-19.

³ 'G., filiam Bernardi de Gualdo . . . que, quamquam bruna sit, abilis est et placida in conspectu, morum elegantia decoratur, nitet sapientia, magnaeque nobilitate clarescit. Preterea nominata dotem exhibet grandi censu, caros habebit amicos plurimos et affines.' MS. lat. 8661, f. 98; on f. 96 v, on the other hand, a student writes that his approaching marriage will prevent his return to school.

⁴ *Ibid.*, f. 99 v, from Buoncompagno; also published from an anonymous fragment at Rheims (MS. 1275, f. 40 v) by Wattenbach in the *S. B.* of the Berlin Academy for 1892, p. 93; it will be found, followed by another of similar character, in the copies of the *Antiqua rhetorica* in MS. lat. 8654, f. 22, and MS. lat. 7732, f. 14. Cf. Guido Faba, *Epist.*, no. 9, where a son assures his father that he has been studying in the *Code* of Justinian and no other.

⁵ E.g., the letter of a French student at Bologna in the Formulary of Tréguier (MS. lat. n.a. 426, f. 17), cited by Delisle in the *Histoire littéraire*, xxxi. 30. The following letter from Angers in the same collection (f. 3) is not mentioned by Delisle: 'Reverendo pre omnibus suo patri reverencia filiali tali patrifamilias titulis domini talis opidi decorato, talis suus filius Andegavis in studio moram trahens [MS. traans] salutem corporis et anime, licet ipsa salute corporis iam privetur. Reverende pater, vobis tenore presencium innotescat me gravi valetudine corporis iam detentum taliter quod exercere studium nequeo, sed in lecto iacens egritudinis me rectis pedibus non valeo sustentare. Quare paternitati vestre carissime suplico, care pater, visis presentibus unum de vestris clientibus cum equo suaviter ambulante et sufficienti pecunia ad

asks to enter the army or some other more congenial occupation.¹ One father promises the delights of manual labour to a son who complains that the Scriptures are too hard for him to understand and desires to do "some more useful work which leads to temporal gain."²

For the student who has finished his university studies there are naturally forms for soliciting cathedral prebends, benefices, or appointments as schoolmaster.³

As is indicated by letters already cited, one of the first cares of a student was to provide himself with a suitable room. Various models show that it was usual to secure accommodations in advance through acquaintances, a necessary precaution when the number of new students was uncommonly great.⁴ The scholar is going to Paris at the feast of St. Rémy,⁵ or he is

expensas pro me mittere non tardetis, quo ducente vestram gratuitam presentiam ante quam moriar valeam visitare. Spero etenim firmiter quod mea infirmitas mutacione locorum valeat immutari, alias timeo et oresco ne ossa mea terra contegat aliena. In MS. lat. 15131, f. 177 v, a student at Orleans writes to the same effect. So in the B.M., Cotton MS. Vitellius C. viii, f. 141, where the writer wishes 'vehiculum et expensam.' Cf. Cartellieri, no. 128.

¹ 'Patri karissimo, etc. In labore scholastico sedi diucius ut mihi thesaurum scientie comparem, verum sed irritum laboravi et video quantum magis studeo tanto minus proficio nec ad memoriam possum reducere peraudita. Ad hoc ergo discretum habeat consilium vestra veneranda paternitas me ab officio clericali removendo et ad decus milicie, ad quod meus valde suspirat animus, transferendo; aliquin regnum Francorum gressibus visitabo regi donec me faciat militem cum diligencia serviturus.' The father tries to dissuade him, but adds that if in his simplicity he still insists on becoming a knight, he would better serve under his natural lord. Munich, Cod. Lat. 22293, f. 281. In other MSS. of Ponce de Provence (MS. lat. 18595, f. 19 v; MS. lat. 8653, f. 11 v; Arsenal MS. 3807, f. 59; B.M., Arundel MS. 514, f. 73 v) the request is more general—'filius patri quod non potest addiscere, et removeat eum ab officio clericali ad aliud aptum officium transferendo,' and in the reply the student, if he returns, is to go into business like his brothers—'negociando lucraberis, sicut faciunt fratres tui.'

² In the *dictamina* of Nicholas of Breslau (*Codex diplomaticus Silesiae*, v. 318).

³ See *ante*, p. 9, n. 1, and, for an application for a schoolmaster's position, the letter from Orleans in MS. lat. 8350, f. 108 v.

⁴ See the letter from Laon, written not long before 1117, in the *B. E. C.*, 1855, p. 466.

⁵ 'Ad festum beati Remigii est mihi propositum ire Parisius et vobiscum in eodem hospicio commorari. Unde vestram benivolentiam commoneo ut tam mihi quam vobis de bono hospicio curetis providere, quod in illud nostri socii utrumque confiteant ad honorem.' MS. lat. 8653, f. 32 v.

a monk whose prior has just granted him a year's leave of absence,¹ and he would like to live "away from the rush and noise of men,"² in the same room with his friend, if possible, or at least in the same hospice.³ Frequently the student's father places him under the care of a relative or friend,⁴ or he may ask the master to take special charge of the young man and his spending-money,⁵ or to buy him a *Code*, if necessary, and to keep him off the streets on holidays lest he follow his brother

¹ 'De priore meo et meis confratribus pro anno sequenti scolatizandi licentiam optinens.' *Salutationes secundum usum Oxonie*, in the Bodleian, Auct. F. 3. 9, f. 423 (fifteenth century). For the correspondence of monastic students, cf. V. Schmidt, "Ein Lilienfelder Formelbuch," in *Studien und Mitteilungen aus dem Benediktiner- und dem Cistercienser-Orden*, xxviii. 392-402, 577-595 (1907).

² 'Ab incurso hominum et strepitu separata.' Delisle, *Formulaire de Tréguier*, no. 15. 'Longe a tumultu hominum sequestratus,' says another model in the same formulary (MS. lat. n.a. 426, f. 13).

³ 'Vobiscum in eodem hospicio et etiam in camera et propono et desidero, si vobis placuerit, commorari.' Ponce de Provence, in B.M., Arundel MS. 514, f. 77 v; MS. lat. 18595, f. 23 v; MS. lat. 8653, f. 13; Arsenal, MS. 3807, f. 62 v; Munich, Cod. Lat. 22293, f. 283.

⁴ 'Mittitur filius ad amicum ut eum in pedagogio ponat.' *Epistolares quedam formule . . . extracte ex maiorum litterarum collectorio scholaribus Lovanii in pedagogio Lillii lectarum*, of the end of the fifteenth century, in Munich, Cod. Lat. 7082, f. 20 v (there is another copy in the Library of the University of Cambridge, Gg. v. 37). Cf. Munich, Cod. Lat. 96, f. 39 v; Cod. Lat. 14708, f. 59 v; Cod. Lat. 22294, f. 42 v. In a formulary from Orleans composed about the year 1230 (see Langlois, *Formulaires de lettres*, iii. 14), and preserved at Rouen, MS. 1468, f. 363 v, we find: 'Exoramus quatinus expensis tali filio nostro apud vos ad studium misso vobis placeat [MS. placat] providere et omnia bene computetis; nam parati sumus ad mandatum vestrum persolvere quicquid iustum fuerit cum actione multimoda gratiarum.' A Silesian student at Paris, near the middle of the fourteenth century, receives money weekly from the *hospes* with whom it is deposited (T. Jacobi, *Codex epistolaris Johannis Regis Bohemiae*, Berlin, 1841, p. 58). See further Guido Faba, *Dict. rhet.*, nos. 13, 14; *Zeitschrift des Vereins für Geschichte und Alterthum Schlesiens*, xxvii. 354; Wattenbach, "Iter Austriacum," p. 52 (formulary from Naples, ca. 1230); and Chapter VI, below.

⁵ 'Et pourceo que jeo pensa qil demoura illeosques entre cy et Pasche sanz venir al hostel, si ay envoie oue lui vint soldes queux devers voillez prendre de luy et les gardre devers vous tanque soient ouelement despenduz, qar si la somme demouroit en son burse desmeme y les degastreit maintenant en chose queu amonterent rienz.' B.M., Harleian MS. 4971, f. 20 v: a rhetorical treatise in French, with models, belonging to the reign of Edward III. Cf. Ellis, *Original Letters*, third series, i, p. x, note; and W. Uerkvitz, *Tractate zur Unterweisung in der anglo-normannischen Briefschreibekunst* (Greifswald diss., 1898). John, archbishop of Prague, who studied at Prague, Padua, Bologna,

into the Dominican order.¹ That indefatigable *rhetor*, Ponce de Provence, has left us models of all necessary correspondence between father and teacher—how the son is sent and received, the reports of his conduct and the appropriate parental admonition, statements of his progress and of the completion of his studies, and finally the letter sending the master his pay with the father's thanks.² In an example written at Cambridge a master is asked to permit a student to visit his parents,³ while in another letter of the same collection a young man announces that he will bring his master home with him for two or three days at Christmas.⁴

The letters of students make frequent mention of their books and studies, but do not add much to our information on these subjects. Books were, of course, in steady demand, for purchase as well as for rent, and furnished a convenient occasion for appeals to the parental purse,⁵ although it might also happen that they would be left in a chest at home until sent for.⁶ Often

Montpellier, and Paris, in the latter part of the fourteenth century, says that in his student days the masters had charge of the scholars' money, so that they rarely had anything to spend and could never buy sweetmeats (*Archiv für österreichische Geschichte*, lv. 327). Note the regular payments to poor scholars in the "Livres de dépenses d'un dignitaire de l'église de Paris en 1248," published by Borrelli de Serres in *Mémoires de la Société de l'Histoire de Paris et de l'Île-de-France*, xxxi. 93-118 (1904).¹ Rheims, MS. 1275, f. 40-40 v.

² B.M., Arundel MS. 514, f. 70; MS. lat. 18595, f. 16 v; MS. lat. 8653, f. 9; Arsenal, MS. 3807, f. 56 v; Munich, Cod. Lat. 22293, f. 278. Letters of fathers sending their sons to school may also be found in Gaudenzi, *I Suoni*, p. 170; and in Hauréau, iv. 271. In Munich, Cod. Lat. 7082, f. 18, a master at Louvain returns a scholar 'in artibus graduatus,' but hopes he will continue his studies at Louvain or some other university.

³ 'Et, tres gentil sire, vous plaise entendre que nous en avons tres grant voluntée et regret pour parler avec notre chier filz, sil vous plaist. Car vrayement ja grant temps a que nous ne lui vismes mais. Si vous prions chierement, tres doulz et tres gentil sire, que vous lui vueillez donner licence pour venir a l'ostel de parler avec nous au plus tost que faire se pourra bonnement.' B.M., Harleian MS. 3988, f. 49 v (forms of letters in French relating chiefly to affairs in the eastern counties in the reign of Richard II; cf. Ellis, *l.c.*).

⁴ 'Mon tres doulz pere, sauve votre grace il nest pas vray ce que vous mavez certifiée par votre lettre, comme mon tres honeuree maistre vous dira plus plainement à Noel, quar il venra avecque moy pour sojourner et prendre desduit avec vous par deux jours ou trois, sil vous plaist.' *Ibid.*, f. 45 v.

⁵ Compare the warning to certain students in Pez, *Thesaurus anecdotorum*, vi, 2, p. 186.

⁶ 'Dilectioni tue notum esse desidero quod, cum me Parisius transtulerim

the particular work needed is ordered through some friend. Thus if the writer is studying grammar, he wants a *Grecismus* and a *Doctrinale* with the glosses copied in a large and accurate hand,¹ or more rarely a Priscian and *Argentea lingua*.² When well advanced in grammar, he may aspire to study law,³ and thus become a "tower of refuge to his friends and a source of terror and confusion to his enemies."⁴ Then, if a civilian, he will need "ten livres *tournois* for a certain book called *Digestum Novum*,"⁵ or forty livres *parisis* for the *Code*, *Digest*, and *Institutes*,⁶

ad hoc ut studiis vacem omni qua possum diligentia, libros quos in archa tua habes repositos habeo necessarios ad propositum studiorum,' writes a student to his mother: Munich, Cod. Lat. 6911, f. 53; MS. lat. 14069, f. 201. Cf. the request for 'anomynale and a bok of sofystre of my brother Emundes' in the *Paston Letters* (ed. Gairdner), i. 82.

¹ Thus a student at Orleans sends to his friend 'P. de tali loco,' 'Doctrinale cum magnis glosulis de litera veraci et legibili tam in nota quam in textu.' Arsenal, MS. 854, f. 214 v. In the *Formulaire de Tréguier*, no. 10, a *Doctrinale* of this sort is sought by the schoolmaster of Prat. So in the same MS. of the Arsenal, f. 215, the student wants 'Doctrinale . . . et Grecismus et ceteros libros gramatice oportunos'; and in Ponce de Provence the *Grecismus* and *Doctrinale* are desired: B.M., Arundel MS. 514, f. 72; MS. lat. 18595, f. 18; MS. lat. 8653, f. 11; Arsenal, MS. 3807, f. 58. Cf. also *Zeitschrift für die Geschichte des Oberrheins*, new series, xi. 34.

On the *Doctrinale* of Alexandre de Villedieu and the *Grecismus* of Évrard de Béthune, the popular grammatical text-books of the thirteenth and fourteenth centuries, see D. Reichling, *Das Doctrinale des Alexander de Villa Dei* (Berlin, 1893), and J. Wrobel, *Eberhardi Bethuniensis Graecismus* (Breslau, 1887); and cf. Thurot in the *Notices et extraits*, xxii, 2, especially pp. 98-102, and the excellent studies of L. J. Paetow. A facsimile of a portion of a MS. of the *Grecismus*, showing the glosses, is given by Prou in his *Manuel de Paléographie*, fourth edition, plate xiii.

² Hugh of Bologna, in *Neues Archiv*, xxii. 300; cf. Chapter IX, no. 5, *infra*.

³ Guido Faba, *Dict. rhet.*, no. 61. Ponce de Provence, in B.M., Arundel MS. 514, f. 72 v; Munich, Cod. Lat. 22293, f. 280; Troyes, MS. 1556, f. 16.

⁴ 'Tuorum turris et refugium amicorum et inimicorum confusio atque terror.' Ponce de Provence, *l.c.* Cf. *Codex diplomaticus Silesiae*, v. 318, and the letter from Orleans cited below.

⁵ 'Quatinus michi in .x. libris Turonensium pro quodam libro emendo qui *Digestum Novum* dicitur dignemini subvenire.' Laurentius of Aquileia, in MS. lat. 11384, f. 36 v; also in MS. lat. 16253, f. 12, except that here the text reads 'libris Parisiensibus' (*sic*).

⁶ 'Patri ac domino metuendo B. civi Parisiensi, C. humilis eius natus scolarius [MS. scolari] Ariliensis salutem cum reverencia filiali. Cum scientia sit nobilis possessio, illa est maxime appetenda que nobilissima reputatur. Hinc est quod in legum honorabili facultate propono ulterius desudare, quia sui possessores multum honoris consequuntur. Quare dominationi vestre supplicat devotio

while if he forsakes these "clamorous subterfuges"¹ for the canon law, he must have the *Decretals* at least² and perhaps the *Summa* of Gaufridus.³ From Orleans a student writes that he has become famous in dialectic, and desires to study theology if only his father will send him enough money to buy a Bible.⁴ The father praises his ambition but cannot afford the great expense of a theological course—let the son turn to some of the 'lucrative' professions.⁵ There are, of course, numerous letters in praise of the *ars dictaminis* and its study,⁶ and the "frivolous and empty quarrels" of the logicians are not forgotten.⁷ The preoccupations of the twelfth century are reflected in the "little glosses" with which one master has filled thirty-two volumes.⁸

Usually the writers of these letters study their law at Bologna

filialis quod [MS. qq] causa emendi Codicem et Digestum cum Institutionibus quadraginta libras Parisiensium michi mittere procuretis, scientes pro certo quod iste labor vobis et amicis nostris honorem et gloriam reportabit.' Arsenal, MS. 854, f. 214.

¹ 'Clamosis tergiversationibus legistarum.' Laurentius of Aquileia, MS. lat. 11384, f. 59 v.

² 'Decretales in textu et glosa sufficienter correctas ad usum meum pro competenti precio emere procuretis.' Id., MS. lat. 14174, f. 126; MS. lat. 11384, f. 55; MS. lat. 16253, f. 23.

³ A. Starzer and O. Redlich, *Eine Wiener Briefsammlung* (Vienna, 1894), pp. 245 f.

⁴ 'Demonstratione presentis cedula noscat vestra paternitas, pater karissime, quod ego sum Aurelianus sanitate corporea per Dei gratiam predicatus et in dyalectica taliter fundatus quod omnes scholares et etiam magistri dicunt me fore disputatorem optimum et sophistam, et multum desiderio in sancta theologia de cetero prostudere. Michi mittat igitur, precor et moveo, paterna pietas unde possim Bibliam comparare et expensas habere, quamvis non plenarie, quoquo modo.' Ponce de Provence, B.M., Arundel MS. 514, f. 73; MS. lat. 18595, f. 19 v; MS. lat. 8653, f. 11 v; Arsenal, MS. 3807, f. 59; Troyes, MS. 1556, f. 17. In Pez, *Thesaurus anecdotorum*, vi, 2, p. 185, a student who has secured a benefice is required to learn the Psalter by heart.

⁵ 'Hoc requirit, sicut mihi dicitur, magnos sumptus. Audias ergo artes, fili karissime, vel actores vel phisicam vel aliquam scientiam lucrativam, quia non possem tibi magnam pecuniam ministrare.' Ponce de Provence, Arundel MS. 514, f. 73 v, and other MSS. as above. Cf. also K. Burdach, *Schlesische-Böhmische Briefmuster*, pp. 89-90, no. 57.

⁶ For examples see Valois, *De arte scribendi epistolas*, pp. 25-27; *Archiv*, x. 559; Cartellieri, nos. 287-289. Cf. also a letter in the Arsenal (MS. 854, f. 233), where 'scolaris studens Parisius significat socio studenti Tholose quod dictator optimus venit Parisius, et ibi ad studendum venire non postponat.'

⁷ Petrus de Hallis, in *Fontes rerum Austriacarum*, second series, vi. 117.

⁸ Cartellieri, nos. 274, 275, 279.

or Orleans, their medicine at Montpellier, and so on, but sometimes their statements add to our knowledge of the mediaeval curriculum and the branches that flourished at different institutions. Thus Thurot concludes from the models of Ponce de Provence that logic was not necessary for the study of law, but was demanded of students of medicine and was indispensable for theology,¹ and it is on such forms that Fitting bases his argument for the early pre-eminence of Pavia over Bologna as a centre of legal instruction.² The arrival of the new French theology at Bologna can be traced in the same way.³ Similar evidence has enabled Delisle to establish the existence of a flourishing school of rhetoric and literature at Orleans in the twelfth century,⁴ while the later decline of the *trivium* there is seen in a letter of the early fourteenth century.⁵ A careful study of the formularies would also show something as to the regions upon which the various universities drew most largely for students,⁶

¹ *Notices et extraits*, xxii, 2, p. 93, note. For the studies preliminary to 'physical science' at Naples, see the letter printed below, Chapter VI, p. 136.

² *Die Anfänge der Rechtsschule zu Bologna* (Leipzig, 1888), pp. 80, 105.

³ Chapter IX, no. 3, 3, *infra*.

⁴ 'Les Écoles d'Orléans au XII^e et au XIII^e siècle,' in *Annuaire-Bulletin de la Société d'Histoire de France*, vii. 139-154 (1869). Cf. the letter of certain Flemish scholars expressing their dissatisfaction with the instruction they found at Orleans. Valenciennes, MS. 483, f. 96 v; printed below, Chapter IX, p. 186.

⁵ A certain P. of Salins (Jura) desires to give instruction in rhetoric and logic at Orleans, 'ubi plures dicuntur trivialibus assidentes,' but in response to his inquiries 'G. Arelianis studens' writes: 'Scicitatus sum quot et quanti forent Arelianis in trivialibus auditores, tandem pro facto compertum est hos scolares esse paucos et indigos nec non superficia rudimenta sectantes, quod eorum doctores intuiti ad reliquas convolant disciplinas. Igitur quamquam meus animus vestram gliscat presenciam, nullominus vobis instinctu consulo caritatis quod [MS. qq] Arelianis non curetis pro trivialibus edocendis venire, ubi non sunt plures qui subtiliter audirent sermonis vestri dogmata <venienda> veneranda.' MS. lat. 8653A, f. 16.

⁶ Thus Delisle has pointed out on the basis of the Formulary of Tréguier that the youth from that part of Brittany frequented Orleans rather than Paris. The collection from Arbois (MS. lat. 8653A), to which reference has frequently been made, indicates that Orleans was also the favourite resort of scholars from Franche-Comté, although Paris, Montpellier, and Bologna are also mentioned in the letters. We find Paris occupying a prominent place in forms from the upper Rhine (*Zeitschrift für die Geschichte des Oberrheins*, new series, xi. 34; *Archiv*, xi. 503), and from more remote parts of the Empire (Pez, *Thesaurus anecdotorum*, vi, 1, col. 427; vi, 2, pp. 14, 185; Jacobi, *Codex*

and might throw some light upon the matter of inter-university migration. Thus in 1291 an English student who hopes to lecture on canon law at Oxford has, by the advice of a member of the papal curia, begun his legal studies at Bologna—where a thieving servant made away with his *Decretals*, and almost led him into the irregularity of cutting off the thief's head.¹

Letters from all parts of Europe testify to the expense attendant upon securing a degree. Thus a student at Paris asks a friend to explain to his father, "since the simplicity of the lay mind does not understand such things," how at length after much study nothing but lack of money for the inception banquet stands in the way of his graduation.² From Orleans D. Boterel writes to his dear relatives at Tours that he is labouring over his last volume of law and on its completion will be able to pass to his licentiate provided they send him a hundred livres for the necessary expenses.³ A student of medicine at Montpellier asks for "more than the usual amount of money" in view of his promotion.⁴ A

epistolaris Johannis Regis Bohemiae, p. 58; etc.), while German students are often represented as attending Bologna (*Das Baumgärtenberger Fornelbuch*, Vienna, 1866, p. 317; *Codex diplomaticus Silesiae*, v. 318; B.M., Arundel MS. 240, ff. 122-123). In general, evidence of this sort must be used with caution, as names of universities might be retained from older models, or well known *studia* like Paris or Bologna might be inserted without their having any close connexion with the region where the formulary took its present shape.

¹ Historical Manuscripts Commission, *Various Collections*, i. 260.

² Rockinger, *Q. E.*, ix. 487. Cf. *Romanische Forschungen*, xiii. 914 f. (1902). On inception feasts at Oxford compare the *Litterae Cantuarienses*, i. 416; and the *Paston Letters*, iii. 248.

³ 'Viris providis et discretis consanguineis peramatis A. et B. et C. cognomine Roterellis, civibus Turonis, D. Boterel Aurelianus in ultimo legum volumine lectionibus elaborans, cum salute vite cursum prosperum et longevum. . . . Vestra noverit dilectio mihi cara quod infra mensem, favente Deo, finiem librum meum, quo finito licentiam in legibus adipisci potero, qua obtempta conscribi desidero venerabili collegio professorum. Sane cum tunc oporteat me facere sumptus graves, vobis supplico quod [MS. qq] in .c. libris Parisiensium vos habeam provisos, taliter quod, meo principio subventionem vestram laudabiliter celebrato, vestre dilectionis affectum recoligens per effectum vobis impensius magis teneam obligatus.' Arsenal, MS. 854, f. 215. Cf. the Italian models published by Gaudenzi, *I Suoni*, p. 168.

⁴ 'Venerabili patri in Christo suo P., civi Bisuntino, G. studens in Montepessulano . . . Porro nostis quod dudum theoreticis et practicis laborans [MS. laborant] ad eliconam medicine provear, cuius messis est copiosa. Propinquat nunc tempus quo predicatus honore magistrati repatriare decrevi. Placeat

successful inception at Bologna is thus described by Buoncompagno:

Sing unto the Lord a new song, praise him with stringed instruments and organs, rejoice upon the high-sounding cymbals, for your son has held a glorious disputation, which was attended by a great number of teachers and scholars. He answered all questions without a mistake, and no one could get the better of him or prevail against his arguments. Moreover he celebrated a famous banquet, at which both rich and poor were honoured as never before, and he has duly begun to give lectures which are already so popular that others' classrooms are deserted and his own are filled.¹

Buoncompagno also tells of an unsuccessful candidate who could do nothing in the disputation but sat in the chair like a goat while the spectators in derision called him rabbi; his guests had such eating that they had no will to drink, and he must needs hire students to attend his classes.²

If we were to judge them by their own accounts, mediaeval students were models of industry and diligence, hearing in some instances at least three lectures a day and expecting soon to excel their professors as well as their fellows.³ The *dictatores*, igitur paternitati vestre mihi plus solito pecunia subvenire.' MS. lat. 8653A, f. 9 v.

¹ 'Cantate Domino canticum novum, psallite in cordis et organo, cum cimbali benesonantibus iubilare [Psalms, cl. 4, 5], quia filius vester venerabilissimum celebravit conventum, in quo fuit innumerosa magistrorum et scholarum multitudo. Ipse vero querentibus et questionibus absque defectu aliquo satisfecit, nullus ei concludere potuit obiciendo, sed ille universis obiciendo conclusit et nemo fuit qui suis potuerit argumentis instare. Preterea famosum convivium celebravit, in quo tam pauperes quam divites melius quam unquam auditum fuerit honorati fuerunt. Item cum sollempnitate scholas regere celebres iam incepit, vacuavit scholas multorum, et habet plurimos auditores.' Munich, Cod. Lat. 23499, f. 6 v; MS. lat. 8654, f. 11; B.M., Cotton MS. Vitellius C. viii, f. 94 v.

² 'Celebravit conventiculum, non conventum, in quo sedit tanquam hircus in cathedra et rabbi [MS. arabbi] fuit derisorie appellatus, quia non erat puer qui sibi de quolibet sophismate non concluderet manifeste et ipse in obiciendo procedere non sciebat. Invitati autem ad convivium taliter comederunt quod non habuerunt voluntatem bibendi. Item incepit regere cum quibusdam conductitiis et novitiis, quia nullum valet habere profectum nisi velit illum pretio numerario comparare.' *Ibid.* (Cf. the *Novissima rhetorica* in Gaudenzi, *Bibliotheca iuridica Medii Aevi*, ii. 273, 282.) This is followed by an account of a candidate who answered satisfactorily the question set him, but, to the amusement of the audience, proved unable to explain a proposition which he himself had propounded to others.

³ 'Scholas commaneo frequenter, omni die ad minus tres lectiones mihi utiles

however, were well acquainted with other types of academic youth, who needed to be reminded that reward came, not from having been at Paris, but from profitable study there,¹ and many are the forms of warning or reproof that they have left us. Buoncompagno indeed has a rebuke for him who studies too much—who rises before the morning bell, is first to enter and last to leave the schools, spends the day in his room reading, ponders his lectures at meal-time, and even reviews and argues in his sleep—but he significantly adds that the same letter may be addressed in irony to one who studies too little.²

Letters to fellow-students occupy a considerable place in these collections, but they are confined for the most part to messages of condolence, introductions, requests for news, protestations of friendship, and similar commonplaces.³ We also find students urging friends to join them at Paris, "that flourishing centre of the arts, with all their turns and twists, theology, and canon law," where corn and wine and masters abound,⁴ arranging to

a magistro et sociis audiendo, et spero dum ad partes natales rediero quod tantum profecerim quod non solum meos coetaneos sed etiam quosdam meos magistros in facultate scholastica valeam superare.' Munich, Cod. Lat. 2649, f. 50.

¹ Philippe de Harvengt, in *Chartularium Universitatis Parisiensis*, i. 53; Konrad von Mure, in Rockinger, *Q. E.*, ix. 440; Wolfgang of Altaich, in *Pez, Thesaurus anecdotorum*, vi, 2, p. 185, and Berlin, MS. Lat. oct. 136, f. 112.

² 'Littere quibus notantur gravamina que possunt de nimietate studii provenire. . . . Dicitur autem quod ante pulsationem initialis tintinabuli surgis preter consuetudinem ad legendum, in ingressu scholarum es primus et ultimus in regressu; postquam autem reverteris ad hospitium diem totum continuas in lectionibus quas audisti; immo, quod plus est, variis cogitationibus dum comedis anxiaris, et etiam in sompno, in quo animalium virtutum quies esse deberet, sub quadam imaginatione disputas et lectiones repetis dormiendo.' Then, after describing the student's neglect of his personal appearance, he adds: 'Nota quod premissa narratio destinari potest etiam illi qui huc et illuc vagatur et studere contempnit, et dicitur hoc species ironie in qua delinquens efficitur maiori pudore.' Munich, Cod. Lat. 23499, f. 4; B.M., Cotton MS. Vitellius C. viii, f. 93.

³ These are particularly common in the various redactions of Bernard de Meung. Thus: 'Socius socio consolans eum de morte socii sui' (MS. lat. 1093, f. 62); 'Scolaris sociis suis ut latores presentium secum in hospitium habeant' (B.M., Add. MS. 8167, f. 179 v); 'Scolaris amico suo' for news (Munich, Cod. Lat. 96, f. 38). Cf. Cartellieri, nos. 78, 79, 287-304; P. Wolff, *Der Briefsteller des Thymo von Erfurt und seine Ableitungen* (Bonn diss., 1911), pp. 17-21; and Burdach, *Briefmuster*, pp. 85 ff., nos. 54 ff.

⁴ Ponce de Provence in MS. lat. 18595, f. 24 v. Bernard de Meung in MS

make the journey together to Bologna in the autumn,¹ or inquiring concerning the advantages of other places of study.² Reference has been made above to the practice of securing rooms through friends already at school; in case of the death or sudden departure of a student his effects were sent home by one of his fellows.³ At Bologna, at least, it was customary for the companions of a departing student to accompany him on horseback some miles on the way, and we even find outlines⁴ of a

lat. 1093, f. 61 v (also B.M., Add. MS. 18382, f. 94 v; Cotton MS. Vitellius C. viii, f. 140): 'Tuam ergo commoneo caritatem ut, relicta soli natalis dulcedine, mature te conferas ad urbem Parisius, ubi florent ambages artium et profunda scientia divine pagine cum decretis.' An exhortation to come to Paris is also noted in *Zeitschrift für die Geschichte des Oberrheins*, new series, xi, 34; and in MS. lat. 14069, f. 185, we read: 'Cum igitur circumstancias ville Parisiensis scire meoque rescripto super hiis certificari desideres, innotescat tue dilectioni quod status terre bonus est, vinum et annona pro modico precio sui plenam exhibent ubertatem, magistrorum etiam copia tanta super quod scholarium indigentia supprimatur, et—quid plura referam?—omnia se prospera sociis studere volentibus offerunt et iocunda.' So from Leipzig in the fifteenth century 'quidam scribit quodam socio hortando eum ut ocius beanorum spretis inepciis ad universitatem quampiam sese recipere festinet' (Munich, Cod. Lat. 14529, f. 357). See also the *Rethorica Poncii* (no place, 1486; Hain, no. 13255), ff. 18, 20, where a friend is exhorted to come to Basel.

¹ See for example the correspondence of two German students planning to study canon law at Bologna, in B.M., Arundel MS. 240, f. 122. One writes: 'Patefecit mihi quorundam relatio quod tue voluntatis in hoc stabilitur propositum ut ad Bononiense proficiscatis studium postquam estivi fervoris virtus per successionem auctumpni fertilis fuerit mitigata.' The other will be glad to have his company; 'in crastino beati Michaelis proximo tuum adventum desiderabiliter prestolabor.'

² See the MS. just cited, f. 123, and particularly Guido Faba, *Dict. rhet.*, nos. 38, 39, where a student at Bologna is compelled to leave because of the dearness of living and writes for information concerning conditions at Naples. Laurentius of Aquileia (MS. lat. 14766, f. 119) represents a student at Naples making similar inquiries with respect to Bologna, while a Spanish redaction of Guido Faba (MS. lat. 11386, f. 56) substitutes Salamanca for Bologna and Paris for Naples in the example cited from the *Dict. rhet.* Cf. the letters in Burdach, *Briefmuster*, nos. 70-76, exchanged among students of Paris, Prague, Vienna, and Cracow, ca. 1404.

³ Delisle, *Le Formulaire de Tréguier*, no. 18; cf. also no. 11 and an unpublished letter in the MS. (MS. lat. n.a. 426, f. 9). An analogous letter to a student at Oxford, ca. 1331, is printed in the *Litterae Cantuarienses*, i, 417, and in the same collection (iii, 334) is a long and interesting letter of the reign of Henry VII, written in English and describing the property to be packed and the commissions to be performed for a former student. See also the *Rethorica Poncii* (1486), f. 20 v.

⁴ 'Arenga qua utitur de studio litterali revertens inter illos qui eum causa

proper speech of thanks to be made to these *transcursibiles amici*¹ when they turned back.

In the Orleanese collections the group of letters between fellow-students is often followed by a group of correspondence between lovers—*amicus amice, amasius amasie*, etc.² The lady is warned to beware of the boys (*ne credat iuvenibus*); under the name of Thisbe, she is exhorted to elude her guards by night; she is reproached for having parted with the girdle which the writer had given her; the examples of Helen and Leda should incite her to tenderness,³ etc. A fervid group of such letters is found in an early Italian collection, full of tender reproaches and passionate farewells, and closing with a missive to 'my only rose' in a curious kind of loose rhyme.⁴

Like his modern successor, the mediaeval student seems to have been an inveterate borrower. Sometimes it is a book for which he asks, such as the glosses on Virgil and Lucan, more commonly a loan of money until a messenger arrives from home, and models are not lacking for demanding back the money or the book.⁵ We hear of a certain faithless Peter who borrowed ten livres *tournois*

honoris per aliquot miliaria vel leucas associant in regressu.' *Avenge composite a magistro Petro de Loro*, in the *Liber epistolaris* of Richard of Bury, p. 25 of the copy in the Bibliothèque Nationale (MS. lat. n.a. 1266). Similarly the *Avenge* of Guido Faba, MS. lat. 8652A, f. 30.

¹ The phrase is Buoncompagno's. Sutter, *Aus Leben und Schriften des Magisters Buoncompagno* (Freiburg i. B., 1894), p. 75.

² E.g., MS. lat. 1093, ff. 67 v, 68; Agen, MS. 4, f. 190; Valois, *De arte scribendi epistolas*, pp. 41 f.; Cartellieri, nos. 63, 64, 124, 125, 216-225; Delisle, in *Notices et extrails*, xxxvi. 200; Helen Waddell, *The Wandering Scholars* (Boston and New York, 1927), p. x.

³ 'Dolor Paridis inflexit Helenam et Ledam Iupiter et matrem Herculis et plures alias quas modo taceo.' MS. lat. 1093, f. 67 v.

⁴ 'G. unicę suę rosę A. vinculum dilectionis preciosę. Quę est fortitudo mea ut sustineam ut in tuo discessu pacientiam habeam? Numquid fortitudo mea fortitudo est lapidum ut tuum exspectem redditum que nocte et die non cesso dolere velut qui caret manu et pede? Omne quod iocundum est et delectabile absque te habetur ut lutum pedum calcabile. Pro gaudere duco fletus, nunquam animus meus apparet lętus. Dum recordeor quę dedisti oscula et quam iocundis verbis refrigerasti pectuscula mori libet quod te videre non licet. Quid faciam miserrima, quo me vertam pauperrima? O si corpus meum terrę fuisset creditum usque ad optatum tuum redditum, aut si translatio mihi concederetur Abacuc ut semel venissem illuc . . .' Munich, Cod. Lat. 19411, f. 70.

⁵ Bernard de Meung, in MS. lat. 8653, f. 32 v; MS. lat. 1093, ff. 61 v, 62; MS. lat. 14193, f. 27; Munich, Cod. Lat. 96, f. 37. Ponce de Provence, in B.M.,

one first of January and soon afterward quitted Paris for Orleans, where the lender's friends are requested to hunt him out.¹ The regular means of collecting such a debt seems to have been through the bishop of the debtor's diocese;² at Bologna, however, the matter was taken in hand by the municipal authorities, who threatened, unless the debt were promptly paid, to make it good from the property of such of the debtor's fellow-townsmen as came within reach.³

For obvious reasons, the letters of mediaeval students do not have much to say of what Rashdall calls "the wilder side of university life." We find a Paris scholar complaining of the disorders of the schools and expressing fear of personal violence,⁴ and a student at Toulouse writes that a certain P., against

Arundel MS. 514, f. 78; MS. lat. 18595, f. 24; MS. lat. 8653, f. 13 v; Arsenal, MS. 3807, f. 63; Munich, Cod. Lat. 22293, f. 283 v. *Dictamen* from Louvain in Munich, Cod. Lat. 7082, f. 11 v. *Dictamen* 'magistri Johannis' in MS. lat. 16617, f. 224. Formulary from Toulouse, Arsenal, MS. 854, f. 223 v. Stehle, *Ueber ein Hildesheimer Formelbuch*, p. 9. Munich, Cod. Lat. 6911, f. 53; MS. lat. 14069, f. 201. Cartellieri, no. 283.

¹ 'Petrus, meus socius infidelis, cui decem libras Turonensium liberaliter mutuavi prima die ianuarii nunc instantis, furtive dimisso studio Parisiensi Aurelianum se transtulit ad studendum. Quamobrem sapientiam vestram, que, etc. [understand supplico], quatinus de predicto scolari cautius inquirentes, si eum poteritis invenire michi sine mora vestris litteris declaretis. Nam Parisium proficiscar vel certum nuntium destinabo recuperaturus pecuniam prelibatam vestro auxilio mediante.' Laurentius of Aquileia, in MS. lat. 11384; also with Toulouse in place of Paris and Paris in place of Orleans in MS. lat. 14174, f. 26, and MS. lat. 16253, f. 14 v. In MS. lat. 14766, f. 118 v, and in the B.M., Harleian MS. 3593, f. 49, the student has left Paris for Bologna. See also *Bullettino dell' Istituto Storico Italiano*, xiv. 167.

² 'Clericus episcopo ut cogat clericum reddere sibi pecuniam quam ei concessit.' Bernard de Meung, MS. lat. 1093, f. 57 v; MS. lat. 8653, f. 31; Munich, Cod. Lat. 96, f. 33 v. Similarly Ponce de Provence, in B.M., Arundel MS. 514, f. 83, and Add. MS. 8167, f. 172 v; MS. lat. 8653, f. 15 v; MS. lat. 18595, f. 2 8 v. Tarragona, MS. 6, f. 39 v: 'authors' pledged before starting against the Albigenses.

³ Guido Faba, *Dict. rhet.*, nos. 97, 98; *Epistole*, no. 33. This is confirmed by the *Statuta Populi Bononiae*, ed. Frati, ii. 24, 29-32. On the collection of the debts of Bolognese students see also Giraldus Cambrensis, iii. 289; H. C. Lea, *A Formulary of the Papal Penitentiary in the Thirteenth Century* (Philadelphia, 1892), p. 124; Zaccagnini, *Studio di Bologna*, p. 67.

⁴ 'Cum ad presens intentus esse deberem studiis, urgencia me protrahunt negotia bellorum quorundam, scilicet scolarium nephanda atque maligna perversitas qui studia dissipant, et timor cottidianus ingenium meum distrahit, quem habere me cogit anxietas de insultacionibus malignorum.' Munich, Cod. Lat. 6911, f. 54.

whom he had been warned before leaving his home in Narbonne, had taken forcible possession of his room and so disturbed him in his work that he would like permission to go home at Easter.¹ At Orleans a young man pleads for help from his father because, having quarrelled with a certain youth, as the devil would have it, he struck him on the head with a stick, so that he is now in prison and must pay fifty livres for his release, while his enemy is healed of his wounds and goes free.² That the pranks of students were not always severely judged we may perhaps infer from the letter of a professor of law at Orleans to a father at Besançon in which it is said that while no doubt the man's son G. was one of a crowd that had sung a ribald song on an organ, the matter was of no importance, as the young man's general record was good and he was making excellent progress in law.³

¹ 'Venerabili et discreto viro domino P., nobili burgensi Narbone, anchore spei sue, B. eius clericus, suus in omnibus. . . . Quando a vestra dominatione recessi, mihi districius precepistis ut P. societatem spernerem quantum possem; sed tanquam indiscretus vestrum salubre consilium non perfecti. Iustum est ut de hoc sentiam aliquod contra velle: ipse namque P. tam inique facere non expavit quod propriam cameram dimittere sum coactus, et quosdam socios meos oportuit facere illud idem, ita quod nunc cum filio domini et cum quibusdam mercatoribus de comedere in eo est [?]. Unde cum occasione societatis predicti P. aliquantulum sum turbatus et quasi a studio deviat, dominationi vestre supplico precibus subiectivis quatinus mihi dignetur declarare, si vobis placet, quod ad vos venire debeam in proximo festo Pasche.' Formulary from Toulouse, Arsenal, MS. 854, f. 232. A student makes a similar complaint of having been driven from his room at Paris: Munich, Cod. Lat. 6911, f. 55; MS. lat. 14069, f. 181.

² 'Cum essem nuper Aurelianus, pater karissime, rixatus fui cum quodam iuvene, sicut diabolus ministravit, et ipsum demum percussi cum baculo super caput, et propter vulnus sibi factum fui in Aureliani curia carceratus. Liberatus est quidem iuvenis et sanatus, et a me petunt pro expensis illius in banno curie libras Turonensium quinquaginta, nec antequam solute fuerint possum evadere carcerem supradictum.' Ponce de Provence, in B.M., Arundel MS. 514, f. 74; MS. lat. 18195, f. 20 v; MS. lat. 11385, f. 70 v; MS. lat. 8653, f. 12; Arsenal, MS. 3807, f. 59 v; Troyes, MS. 1556, f. 17 v. Similarly Laurentius of Aquileia, MS. lat. 16253, f. 13.

³ 'Talis professor legum actu legens Aurelianus, laudabili viro P. civi Bisuntino salutem cum dilectionis amplexu. Lingua tertia multos perdidit, ut scriptura perhibet sacrosancta [Ecclesiasticus, xxviii. 16]. Proinde non debetis aurem inclinare credulam linguis obloquencium qui fame filii vestri G. mendoso [MS. mendenso] satagunt derogare susurro. Constat enim non fuisse diem profestum sed aprime festum quo idem G. nec non plurimi scolares (et) organis armonicis decantarunt de scorto. Prorsus nihil est, cum ipse commendatur super mentis et corporis celibatu. Non igitur a prefato manum vestram

Naturally, too, the examples of parental reproof have something to say of the evils of the time, particularly gambling and riotous living.¹ More rarely do we find mention of the more innocent amusements of students, such as the loan of a horse to ride on St. Nicholas' day at Oxford.² One scholar is told that he gives too much time to chess;³ and another's request for a dog is refused, lest it furnish him occasion for waste of time.⁴ In general the formularies reflect the more virtuous side of student life, and for a more adequate portrayal of its vice and violence we must turn to the records of courts, the Goliardic literature, and the vigorous denunciations of contemporary preachers.

It is evident from this brief examination of the letters of mediaeval students that their correspondence has to do chiefly with the commonplace and everyday aspects of life at the school and university, and that in substance, though not in form, much of it would be almost as representative of the Harvard or Yale of to-day as of mediaeval Orleans or Bologna. Lambskin cloaks

pro linguis obtrequantium retrahatis, scientes quod in utroque iure proficit eleganter.' MS. lat. 8653A, f. 10. What is meant by the contrast between 'diem profestum' and 'aprime festivum' is not entirely clear.

¹ E.g., 'Lupanar in scolis et ludum exerceas alee, litteralis scientie profectum abhominans': B.M., Cotton MS. Vitellius C. viii, f. 141r. 'Nam omnino labore scolastico postrigato tempus tuum et alia que habes consumis, ut dicitur, pilas, Dianam, et meretricia frequentando': letter to student at Orleans, MS. lat. 15131, f. 180v. Cf. also Guido Faba, *Dict. rhet.*, no. 3, and the Bohemian collections of the fourteenth century analysed by Palacky in the *Abhandlungen der königlichen böhmischen Gesellschaft der Wissenschaften*, fifth series, ii. 259, and by Schlesinger in the *Mittheilungen des Vereins für die Geschichte der Deutschen in Böhmen*, xxvii. 16. See also Matthew of Vendôme, ed. Wattenbach, pp. 620-621.

² 'Constanciam vestram quam diligo cordis et anime puritate deprecor incessanter quatinus equum vestrum in honore sancti Nicholay equitandum dignetur vestra dilectio mihi accomodare, super quem honorifice valeam equitare.' Bodleian, Auct. F. 3. 9, f. 427 (fifteenth century). On the feast of St. Nicholas—the patron saint of scholars—as celebrated in the schools of Saint-Denis, see the form printed by Hauréau, iv. 276. A letter, entitled 'Scolaris patri significans se eligendum episcopum puerorum' (Stehle, *Über ein Hildesheimer Formelbuch*, p. 9; *Zeitschrift des Historischen Vereins für Niedersachsen*, 1896, p. 108) seems to allude to the same occasion. Cf. *infra*, p. 69.

³ Luchaire, *Études*, p. 103, no. 19.

⁴ *Liber epistolaris* of Richard of Bury, MS. lat. n.a. 1266, p. 81; also in a Cistercian formulary, MS. lat. 11384, f. 195.

and parchment, the glossed *Doctrinal* and the inception banquet, belong plainly in the Middle Ages and nowhere else, but money and clothing, rooms, teachers, and books have been subjects of interest at all times and in all places. This characteristic of the letters is in some respects disappointing—we might have known quite independently, it may be urged, that the mediaeval student wanted money and tried to extort it from his father, borrow it from his fellows, or beg it from others; we might have known that he was robbed by highwaymen and rebuked by his parents. What a pity that out of such a mass of letters there are none that tell us in simple and unaffected detail how a young man studied and how he spent his day! To all this the answer is that under the conditions then prevailing very few such letters could have been written, and, if written, there was no reason why a matter of such individual and temporary interest should be preserved. It was precisely because they were trite and banal, because they voiced the needs of the great student body everywhere and always, that these letters and models were considered useful to others and hence were copied and kept. It is certainly worth something to us to know what were the commonplaces of existence in the schools of the Middle Ages, and to realize more vividly those phases of student life which we might otherwise lose from view. One may, of course, easily be deceived by the modern atmosphere with which such letters, read without reference to other sources of information, surround the mediaeval student, and yet from one point of view their value lies just here. The contrasts between the Middle Ages and the twentieth century are broad and striking, in universities as well as in the world at large, and we need to be reminded again and again that the fundamental factors in man's development remain much the same from age to age and must so remain as long as human nature and physical environment continue what they have been. A just historical view requires accurate appreciation of both the constant and the varying elements in the history of civilization; the present chapter may perhaps serve to illustrate something of their relative importance in the life of the mediaeval student.

CHAPTER II

THE UNIVERSITY OF PARIS IN THE SERMONS OF THE THIRTEENTH CENTURY ¹

IN the intellectual life of the Middle Ages the University of Paris occupies a place of pre-eminent importance. "The Italians have the Papacy, the Germans have the Empire, and the French have Learning," ran the old saying; and the chosen abode of Learning was Paris. "Let us suppose," says a preacher by way of illustration, "that all the sky is parchment, all the sea is ink, and all the stars are Paris masters." ² The University of Paris was generally recognized as the 'parent of the sciences' and the first school of the church, and its supremacy was manifest not only in its position as the centre of scholasticism and the bulwark of orthodoxy, but also in the large number and wide distribution of its students, in its influence upon the establishment and the constitutions of other universities, and in its large share in the political and ecclesiastical movements of the later Middle Ages.³ So prominent were the constitutional and theological aspects of the university and so violent the controversies which raged about it, that, amid the confusion of chancellors and faculties and nations, and the conflicts over the new Aris-

¹ Revised and expanded from the *American Historical Review*, x. 1-27 (1904).

² J. Klapper, *Exempla aus Handschriften des Mittelalters* (Heidelberg, 1911), no. 87. Glorifications of Paris as the great centre of learning are common in mediaeval literature. See for examples the bull *Parens scientiarum* of Gregory IX (*Chartularium Universitatis Parisiensis*, i. 136) and the anonymous sermon printed by Hauréau (ii. 105), where Paris is called the mill where the world's corn is ground and the oven where its bread is baked.

³ Cf. Rashdall, *The Universities of Europe in the Middle Ages*, i. 518 ff.; Valois, *La France et le Grand Schisme*; Gross, "The Political Influence of the University of Paris in the Middle Ages," in *A. H. R.*, vi. 440-445; Jean Bonnerot, "L'ancienne Université de Paris, centre international d'études," in the *Bulletin* of the International Committee of Historical Sciences, i. 659-681 (1928). The interesting subject of foreign students at Paris is treated by A. Budinsky, *Die Universität Paris und die Fremden an derselben im Mittelalter* (Berlin, 1876), but there is room for a more thorough study on the basis of the materials since published in the *Chartularium*. The proportion of foreigners among the distinguished doctors of the university was remarkably high. Cf. Hauréau, iv. 47-48.

tote and the 'Eternal Gospel,' there is some danger of losing sight of the more human element and forgetting that an adequate idea of a university can be got only when its teaching and organization are seen against the background of the daily life of its student body. Unfortunately, the sources of information concerning the student life of mediaeval Paris are by no means abundant. There is of course much to be gleaned from the great *Chartularium Universitatis Parisiensis*, so admirably edited by Denifle and Chatelain, and from the proctor's book of the English nation printed as an appendix to it—our knowledge of the various taverns of mediaeval Paris, for example, being largely derived from this nation's minutes of the drinking up of its surplus revenue¹; but most of the documents in this invaluable repository relate to the organization and external history of the university rather than to its inner life. The records of the courts of law, so rich a mine of information for student manners at other universities, fail us entirely at Paris,² and the collections of student letters, which reflect the decent common-places of existence among mediaeval scholars, are of little specific help here.³ For the early years of the university the Goliardic poetry and other products of the renaissance of the twelfth century are, it is true, of considerable value, but this movement was soon crushed by the triumph of scholasticism, and in the thirteenth century, when Paris was the undisputed

¹ Sixty such resorts of this nation, which comprised the students from Northern and Eastern Europe, are mentioned in its records. See E. Chatelain, "Notes sur quelques tavernes fréquentées par l'Université de Paris aux XIV^e et XV^e siècles," in *Bulletin de la Société de l'Histoire de Paris et de l'Île-de-France*, xxv. 87-109 (1898); cf. P. Champion, "Liste de tavernes de Paris d'après des documents du XV^e siècle," *ibid.*, xxxix. 259-267 (1912); and G. C. Boyce, *The English-German Nation in the University of Paris during the Middle Ages* (Bruges, 1927). For other records of the nations, see H. Omont, "Le 'livre' ou 'cartulaire' de la nation de France de l'Université de Paris," in *Mémoires de la Société de l'Histoire de Paris et de l'Île-de-France*, xli. 1-130 (1914).

² For illustrations from Bologna see the documents published in the appendix to F. Cavazza, *Le scuole dell'antico studio bolognese* (Milan, 1896), and for Oxford the coroners' inquests published by J. E. Thorold Rogers, *Oxford City Documents*, pp. 145 ff.; C. Gross, *Coroners' Rolls*, pp. 87-91; J. F. Willard, *The Royal Authority and the Early English Universities* (Philadelphia, 1902), pp. 82-85.

³ See Chapter I, above.

intellectual centre of Christendom, very little Latin poetry of any sort was produced.¹ But while not an age of poetry, the thirteenth century was an age of preaching, and in the scarcity of other sources the enormous mass of sermons which has come down to us from that period is well worthy of examination for the light it throws upon the University of Paris and its life.

The material is at first sight not promising. By their very nature sermons are not historical but hortatory; their purpose is to edify, not to record; and the preaching of the thirteenth century, with its elaborate subdivisions, its piling of text upon text, its senses literal and allegorical, tropological and anagogical, would seem peculiarly barren of information upon the life of its age.² In the midst, however, of the scholastic sermonizing of this period, and soon reacting upon it, there came a genuine revival of popular preaching, due largely to the influence of the Mendicant Orders. In order to hold the attention of the people the preachers found it necessary to be entertaining, as well as simple and direct, and to make abundant use of marvels, anecdotes, and pointed illustrations from everyday life. If his audience showed signs of nodding, the speaker would begin, "There was once a king named Arthur," or shout suddenly, "That fellow who is asleep will not give away my secrets,"³ or "For

¹ The poems of most interest in relation to the University of Paris in the thirteenth century are those of Rutebeuf (ed. Kressner, Wolfenbüttel, 1885). John of Garland can hardly be called a poet, but the large amount of prose and verse which he turned out contains not a little of interest to the student of university conditions. His *Morale scholarium*, however, which promises something of the interest of the German student-manuals of the fifteenth century, proves on examination distinctly disappointing; cf. Chapter III, below. It has now been edited, with great patience and learning, by L. J. Paetow, "Morale Scholarium of John of Garland," in his *Two Medieval Satires on the University of Paris* (Berkeley, 1927). Cf. in the same volume his edition of *La bataille des VII ars* of Henri d'Andeli.

² See the general works of L. Bourgain, *La chaire française au XII^e siècle* (Paris, 1879), and A. Lecoy de la Marche, *La chaire française au Moyen Âge, spécialement au XIII^e siècle* (2d ed., Paris, 1886). There is an excellent résumé of the subject by Langlois, "L'Éloquence Sacrée au Moyen Âge," in the *Revue des deux mondes*, January 1, 1893, pp. 170-201. See now also the interesting volume of G. R. Owst, *Preaching in Medieval England* (Cambridge, 1926).

³ Caesar of Heisterbach, ed. Strange, i. 205; T. F. Crane, *The Exempla of Jacques de Vitry* (London, 1890), p. xlii, note.

God's sake, if any one has a pin let him wake up that old dame!"¹ Such sallies might easily pass the bounds of reverence and even of decency,² and Dante had good ground for complaining of those "who go forth with jests and buffooneries to preach" and swell with pride if they can but raise a laugh.³

Questions of propriety apart, however, it is this very freedom and unconventionality on the part of many of the preachers which gives them their historical interest. The stories, or *exempla*, with which the sermons are embellished come from all kinds of sources—fables and folk-lore, bestiaries, lives of saints, historical manuals, and personal experiences—and comprise the greatest variety of legends and miracles and contemporary anecdotes, so that they afford a most valuable insight into the popular religion and superstitions of their day, besides preserving a considerable amount of curious information concerning the manners and customs of all classes of society.⁴ Still, the great body of mediaeval sermons is not interesting reading, especially in the condensed and desiccated form in which most of them have come down to us. The *exempla* and the allusions to contemporary life constitute but a small portion of the whole, and it is a long and arduous task to separate these from the mass of scholastic theology and pulpit commonplaces in which they lie embedded. In the case of the *exempla* much of this labour of sifting was performed by the mediaeval purveyors of sermon-helps, who not only provided the lazy or ignorant preacher with complete series of sermons for the ecclesiastical year under such suggestive titles as *Sermones parati* or *Dormi secure*, but also furnished material for enlivening these dry outlines in the form of collections of *exempla* conveniently arranged by subjects—manuals of clerical wit and anecdote which enjoyed great popularity in the later Middle Ages and have survived in numerous

¹ Owst, *op. cit.*, p. 186.

² For illustrations see the extracts printed by Hauréau, iv. 17 ff.; and the citations in the *Histoire littéraire de la France*, xxvi. 417 ff.

³ *Paradiso*, xxix. 115–117. Gautier de Château-Thierry says of the sending of the disciples by John the Baptist to Christ, 'Audiebat verba oris eius, non opera regum vel renardi vel fabulas.' MS. lat. 15959, f. 59, col. 4.

⁴ See the sketches in Bourgain and Lecoy de la Marche entitled "La société d'après les sermons."

manuscripts and early imprints. The importance of these compilations for the history of mediaeval culture is now recognized,¹ and a good deal of the more scattered material has been

¹ Upon *exempla* and their use see T. F. Crane, "Mediaeval Sermon-Books and Stories," in the *Proceedings* of the American Philosophical Society, xxi. 49-78 (1883); his "Mediaeval Sermon-Books and Stories and their Study since 1883," *ibid.*, lvi. 369-402 (1917); the introduction and notes to his edition of the *Exempla* of Jacques de Vitry; and Frenken's edition (see below); C. G. N. de Vooy, *Middelnederlandsche Legenden en Exempelen* (The Hague, 1900); J. A. Mosher, *The Exemplum in the Early Religious and Didactic Literature of England* (New York, 1911); the *Catalogue of Romances in the Department of Manuscripts in the British Museum*, vol. iii, ed. by J. A. Herbert (London, 1910); and now especially J. T. Welter, *L'Exemplum dans la littérature religieuse et didactique du Moyen Âge* (Paris, 1927), who discusses the whole subject on the basis of wide knowledge of the printed and manuscript material. Translations of typical stories of this sort have been made into English by Munro, *Monastic Tales of the XIII. Century*, in the *Translations and Reprints* published by the University of Pennsylvania, ii, no. 4; and into French by Lecoy de la Marche, *L'Esprit de nos aïeux* (Paris, 1888). The most important collections from Northern France and neighbouring lands in the thirteenth century are as follows. Jacques de Vitry and Étienne de Bourbon being, as former students at Paris, the most valuable for university life (on all these see now Welter, *L'Exemplum*):

Jacques de Vitry, *Exempla or Illustrative Stories from the Sermones Vulgares*, edited by Crane for the Folk-Lore Society (1890); also in J. B. Pitra, *Analecta novissima spicilegii Solesmensis* (Rome, 1885-88), ii. 443-461. Extracts from his *Sermones vulgares* are also published by Pitra, ii. 344-442; the library of Harvard University possesses a manuscript of these sermons which was once the property of the monastery of S. Jacques at Liège (MS. Riant 35). *Die Exempla aus den Sermones feriales et communes des Jakob von Vitry* have now been edited by J. Greven (Heidelberg, 1914) in the *Sammlung mittellateinischer Texte*, no. 9, and, with a fuller commentary, by G. Frenken, *Die Exempla des Jakob von Vitry* (Munich, 1914) in *Quellen und Untersuchungen zur lateinischen Philologie des Mittelalters*, no. v, 1.

Caesar of Heisterbach, *Dialogus miraculorum*, ed. Strange, Cologne, 1851; fragments of the *Libri VIII miraculorum*, ed. Meister, Rome, 1901; stories from the *Homelias*, ed. A. E. Schönbach, Vienna S. B., cxliv, no. 9 (cf. also his review of Meister, *M. I. O. G.*, xxiii. 660 ff.). On the life and writings of Caesar, see also Schönbach, "Studien zur Erzählliteratur des Mittelalters: Ueber Caesarius von Heisterbach," in Vienna S. B., cxliv (1901), no. 9; clix (1908), no. 4; clxiii (1909), no. 1; and J. Greven, "Kleinere Studien zu Cäsarius von Heisterbach," in *Annalen des historischen Vereins für den Niederrhein*, xcix. 1-35 (1916).

Thomas de Cantimpré, *Bonum universale de apibus*. Various editions; see W. A. van der Vet, *Het Biënboec van Thomas van Cantimpré en zijn Exempelen* (The Hague, 1902).

Étienne de Bourbon, *Anecdotes historiques*, ed. Lecoy de la Marche (Paris, 1877).

Anonymous *Compilatio singularis Exemplorum*, MS. 468 of the Bibliothèque

rendered available by the patient scholarship of the late Barthélemy Hauréau, whose studies must form the starting-point of any other investigations in this field.¹

In endeavouring to bring together such information as the sermons contain upon the life of the University of Paris in the thirteenth century we must give up from the first any idea of an exhaustive investigation. Of all countries France was the most productive in sermons, and probably most of the distinguished French preachers of this period were at some time in their careers connected with the University of Paris; and while few of their sermons have been, or ever will be, published, the number preserved in manuscript reaches far into the thousands. Some practical limit must evidently be set by confining the study to the printed texts and to such portions of the manuscript sources as seem likely to yield fruitful results. Accordingly, besides the collections of *exempla* and the extensive materials published or indicated by Hauréau,² attention has de Tours. Welter, *L'Exemplum*, pp. 236-244, has also found MSS. at Berne and Upsala.

Anonymous *Tabula Exemplorum secundum ordinem Alphabeti*, edited by J. T. Welter (Paris, 1926). Cf. the related collection at Auxerre (MS. 35).

A Franciscan collection, in part from Paris. L. Oligier, "Liber exemplorum Fratrum Minorum Saeculi XIII," in *Antonianum*, ii. 203-276 (1927).

A collection compiled by an anonymous Dominican at or near Cambridge, preserved in the British Museum, Royal MS. 7 D. i, and analysed by Herbert, pp. 477-503.

Reference should also be made to the *Latin Stories* edited by Wright for the Percy Society (1842), and to the fables of Odo of Cheriton in the edition of Hervieux, *Fabulistes latins*, iv (1896).

¹ See particularly his *Notices et extraits de quelques manuscrits latins de la Bibliothèque Nationale*; and numerous articles in the *Histoire littéraire* and the *Journal des savants*. The catalogue of *Incipits* of sermons and other Latin works of the Middle Ages upon which Hauréau based many of his conclusions as to authorship can now be consulted at the Bibliothèque Nationale.

² Hauréau's studies were chiefly confined to manuscripts in Paris. Besides the various manuscripts in other libraries noted below under individual preachers, I have found of special interest the following miscellaneous collections of Paris sermons: Bodleian, Ashmolean MS. 757; Merton College, MS. 237; Munich, Cod. Lat. 23372; Library of St. Mark's at Venice, Fondo Antico, MS. 92. See also the analysis by Langlois of MS. 691 at Arras, containing Paris sermons of the first half of the thirteenth century: *Journal des savants*, 1916, pp. 488-494, 548-559; and the extracts from Graz MSS. of Jacques de Lausanne printed by A. E. Schönbach, "Miscellen aus Grazer Handschriften. 6. Jakob von Lausanne," in *Mittheilungen des historischen Vereines für Steier-*

been directed especially to those preachers who had personal knowledge of academic conditions at Paris and were in the habit of alluding to them in their sermons, particularly to that altogether delightful cleric, Robert de Sorbon,¹ the companion of St. Louis and founder of the Sorbonne, and to the chancellors of the university. Originally simply the official of the church of Notre-Dame who was charged with keeping the chapter's seal and drawing up its documents,² the chancellor was early given

mark, xlvi. 120-192 (1900). Cf. the general remarks on university education by Humbert de Romans, general of the Dominican order from 1254 to 1263, in his *Expositio Regulæ S. Augustini, Maxima bibliotheca patrum*, xxv. 632-634. I have not seen the *Sermones Parisienses* at Erlangen, MSS. 320, 321, 322. Cf. Hans Fischer, *Die lateinischen Pergamenthandschriften der Universitätsbibliothek Erlangen* (Erlangen, 1928), pp. 377-380.

¹ See Hauréau, "Les Propos de Maître Robert de Sorbon," in the *Mémoires de l'Académie des Inscriptions*, xxxi, 2, pp. 133-149; and the bibliography and list of Robert's works in the introduction to F. Chambon's edition of the *De conscientia* (Paris, 1903). The library of the Sorbonne formerly possessed 'Sermones magistri Roberti de Sorbona de tempore, de festis, et ad status' (Delisle, *Cabinet des manuscrits*, iii. 113), but the manuscript seems to have disappeared. The most considerable collection of his sermons which survives is found in the Bibliothèque Nationale, MS. lat. 15971, ff. 68-198, a collection for Sundays and holy days throughout the year, delivered, as appears from the concordance of the fixed and movable feasts, in 1260 and 1261. A large number of these sermons are in his name and many of the others are in his style. Scattered sermons are in MSS. lat. 14952, f. 53 (printed by Hauréau, iv. 69); 15951, f. 374; 15952, ff. 14, 119, 119 v; 15954, ff. 172, 272; 15955, f. 179; 16482, ff. 309-312, 318; 16488, ff. 437 v, 457 v; 16499, f. 272; 16505, ff. 155 v, 157, 217, 220 v; 16507, ff. 30, 267, 268, 421; and in Munich, Cod. Lat. 23372, p. 124.

² On the early functions of the chancellor, see Guérard, *Cartulaire de Notre-Dame de Paris*, i, pp. civ-cv; Mortet, "Maurice de Sully," in the *Mémoires de la Société de l'Histoire de Paris*, xvi. 150 ff. On the later development of the office, see the *Chartularium*, i, pp. xi-xix; Rashdall, *Universities*, i. 395-313, 333-334, 339-342, 393-396, 448-452, 456-458, 472-474.

The chancellors of the thirteenth century are enumerated, with their approximate dates, in the *Chartularium*, i, p. xix, note; ii, p. xv. The following list of their sermons includes all that I have been able to find after a somewhat protracted search. Unless otherwise indicated, the manuscripts are those of the Bibliothèque Nationale:

Pierre de Poitiers, chancellor as early as 1193 and as late as 1204 or 1205. See Bourgain, *Chaire française*, p. 54; Hauréau, ii. 240; iii. 67 ff.; and Lacombe, as cited below, pp. 36, 120-130. The only important collection of his sermons to which attention has been called is in MS. lat. 14593, where several numbers of the series are repeated. Some of these are also in MSS. lat. 3563, f. 114; 3705, f. 129; 12293, ff. 99-107; 13586, p. 330; Bibliothèque Mazarine, MS. 1005.

Prévostin (Prepositinus), a Lombard, chancellor from 1206 to 1209 or there-

supervision over the schools which sprang up about the cathedral, and as these grew in numbers and importance and de-

abouts. On his life and works see Hauréau in the *Mélanges Julien Havet*, pp. 297-303; and now G. Lacombe, *La vie et les oeuvres de Prévostin* (Kain, 1927: *Bibliothèque Thomiste*, xi), the first volume of a projected complete edition of Prévostin's works. His sermons contain exceedingly little on the life of the time.

Étienne de Reims, chancellor from 1214 or 1215 to 1218. Only one of his sermons is known, MS. lat. 16505, f. 190.

Philip de Grève (?), 1218-36, the most distinguished chancellor of this period, often called simply 'The Chancellor.' His poems and theological writings do not concern us here; on the man and his sermons see Oudin, *Commentarius de scriptoribus ecclesiae*, iii. 121; Peiper, in the *Archiv für Literaturgeschichte*, vii. 409 ff.; the index to the first volume of the *Chartularium*; and Hauréau in the *Journal des savants*, July, 1894. H. Meylan, in the *Positions des thèses* of the École des Chartes, 1927, makes two persons of Philip de Grève and Philip the Chancellor, ascribing to the latter all the sermons and other writings; judgement must be suspended until his evidence is made available. The sermons fall into four groups:

1. *Sermones festivales*, for Sundays and holy days throughout the year. MSS. lat. 2516A, 3280, 3543, 3544, 3545, 12416, 15933, 16469 (last portion of series only); Bibliothèque Mazarine, MS. 1009; MSS. Troyes, 1417; Rouen, 615; Alençon, 153, 154; Bourges, 117; B.M., Royal MS. 8. F. 13; Siena, MS. F. x. 5. According to Omont (*Cabinet historique*, 1882, p. 568), this series was also found in the seminary library at Autun, MS. 139B. Scattered sermons of this series are in MSS. lat. 15951, 15954, 15955, 15959, 16466, 16471, 16488, 16505, 16507; MSS. Amiens, 284; Bourges, 115, ff. 74-84; Arras, 329, f. 54.

2. *Expositiones Evangeliorum Dominicorum*, also called simply *Omellie*, really a theological commentary on the Gospels throughout the year (cf. Hauréau, vi. 56). MSS. lat. 3281, 18175; Vatican, Fondo Vaticano, MSS. 1246, 1247; Lincoln Cathedral, MS. A. 2. 5; Cambridge, Peterhouse, MS. 1. 3. 9; Munich, Cod. Lat. 3740; Erfurt, MS. Q. 97; Troyes, MS. 1100, ff. 206-227 v.

3. *In Psalterium Davidicum CCCXXX sermons*. Numerous manuscripts (see Lacombe, p. 156); published at Paris in 1522 and at Brescia in 1600.

4. A number of occasional sermons delivered at Paris and various places in Northern France and possessing considerable historical interest. Two are in MS. lat. n.a. 338 (ff. 152, 236), where they were seen and their importance noted by Hauréau (vi. 239; *Journal des savants*, August, 1889). The others, unknown to Hauréau, are found in MSS. Avranches, 132; Troyes, 1099; and Vitry-le-François, 69. The Avranches manuscript is the most complete collection of Philip's sermons, containing also the first and second series. See Chapter XI for a fuller discussion.

There is no apparent reason for attributing to Philip the *Sermones cancellarii Parisiensis* of MS. 403 of the State Library at Berlin (cf. Rose, *Verzeichniss*, ii. 237) or the *Sermones cancellarii Parisiensis* at Erfurt (MS. F. 103). For a French sermon on the Virgin composed in part by him see Valois, *Guillaume d'Auvergne*, pp. 220 ff.

Guiard de Laon, chancellor from 1237 to 1238, when he became bishop of Cambrai. On his writings see the *Histoire littéraire*, xviii. 354-356; and Hau-

veloped into a university he still asserted his right to license masters and his jurisdiction over scholars. Stubborn conflicts

réau, in the *Journal des savants*, June, 1893. His numerous sermons, many of which are shown by the manuscripts to have been preached at Paris, have not come down to us in any single collection (the *Summula sermonum* seen by Oudin at Dijon seems to have been lost), but are found in several manuscripts, scattered among those of Eudes de Châteauroux, Guillaume d'Auvergne, and others of his contemporaries. Taken together, MSS. lat. 15959, 15955, and 15964 offer a fairly complete series for Sundays and festivals throughout the year, often with several for the same day. MSS. lat. 15951 and 16741 and Arras, MS. 329, contain a large number of sermons *de sanctis*. Various sermons are in MSS. lat. 12418 (five, not three, as Hauréau states), 15952, 15953, 15954, 16488, 16502, 16505, 16507, n.a. 338, and in Amiens, MS. 284 (which contains some in addition to those enumerated in Coyecque's catalogue). A French sermon of Guiard is printed in the *Revue des sciences ecclésiastiques*, iv. 124 (1861). Some of his sermons in MS. lat. 16471 were ascribed by Hauréau to Gautier de Château-Thierry because of the opinion, which he was finally compelled to abandon, that Guiard was never chancellor.

Eudes de Châteauroux, chancellor 1238-44 and afterward cardinal bishop of Tusculum. The time at my disposal has not permitted an investigation of the very numerous manuscripts of Eudes, apparently the most prolific sermonizer of all the chancellors of his century. Cardinal Pitra (*Analecta novissima spicilegii Solesmensis*, ii. 188-343) has published extracts from a collection of 765 of his sermons in the possession of the Dominicans at Rome and has enumerated a large number of other manuscripts; many of the Paris manuscripts have been noted by Hauréau. See also Delisle in *B. E. C.*, xlix. 268-272. The printed sermons and such others as I have read bear out Hauréau's statement that they contain few allusions to the customs or events of the time. On Eudes see Pitra, ii, pp. xxiii-xxxv; Hauréau, in the *Journal des savants*, August, 1888, and in the *Notices et extraits*, xxiv, 2, pp. 204 ff.

Gautier de Château-Thierry, chancellor from 1246 to 1249, when he became bishop of Paris. Scattered sermons by him are found in MSS. lat. 15951, 15953, 15955, 15959, 16471, 16488, 16507; Arras, MS. 329, ff. 1, 53 v, 72, 152; and MS. 691, f. 139 v. In a volume of *Quaestiones theologiae* in the Biblioteca Antoniana at Padua (MS. 152) his name appears on ff. 150 v and 153; on f. 152 v, apropos of the question whether a master reading at Paris can preach without the bishop's license, he has something to say of the chancellor's office. Some account of Gautier and his writings will be found in *Gallia Christiana*, vii. 100; *Histoire littéraire*, xxvi. 390-395; Lecoy de la Marche, *Chaire française*, p. 95.

Étienne Tempier, also known as Étienne d'Orléans, chancellor from 1262 or 1263 to 1268, when he became bishop of Paris. See *Gallia Christiana*, vii. 108-115; Hauréau, in *Journal des savants*, 1890, p. 255. Three sermons by him are in MS. lat. 16481, ff. 77 v, 136 v, 214 (cf. Quétif and Échard, *Scriptores Ordinis Praedicatorum*, i. 269).

Jean d'Orléans, also known as Jean des Alleux, chancellor from 1271 to 1280, when he became a Dominican. See *Chartularium*, i. 494; Quétif and Échard, i. 499; *Histoire littéraire*, xxv. 270-280. His sermons are scattered through MSS. lat. 14899, ff. 46, 83, 86, 132; 14947 (see Quétif and Échard, i.

arose over these claims in the earlier years of the thirteenth century, and various papal bulls placed important restrictions upon the chancellor's powers, but he continued to style himself the head of the university and to direct the examinations leading to the master's degree. As the chancellors were themselves masters and generally distinguished preachers as well, it is evident that their sermons, though they are naturally of the learned and dignified type and need to be used with due allowance for the official and often unfriendly attitude of the authors, represent close acquaintance with university affairs and possess special importance for our purpose.

With regard to the studies pursued at Paris we must not expect to find much information in the sermons. Various chancellors do indeed draw out elaborate comparisons between the seven liberal arts and the seven gifts of the spirit,¹ between the

385); 14952, f. 188 v; 15005 (contained also in MS. lat. 14947); 15956, ff. 279 v, 301 v, 313 v; 16481 (see Quétif and Échard, i. 268); 16482, ff. 178 v, 204, 275 v (ascribed to him by Quétif and Échard and the *Histoire littéraire*); Soissons, MS. 125, f. 60 (Molinier's catalogue is wrong in attributing to him the four that follow, of which two are anonymous and two in the name 'fratris Petri de Remerico Monte'); Troyes, MS. 1788, f. 82 v; Munich, Cod. Lat. 23372, pp. 8, 15, 19, 29, 39, 47, 53, 88, 129, 130; Bodleian, Ashmolean MS. 757, ff. 81, 349, 359; Merton College, MS. 237, ff. 32 v, 94 v, 110; Venice, Library of St. Mark's, Fondo Antico, MS. 92, ff. 228 ff. (six sermons); University of Erlangen, MS. 326, no. 33; MS. 327, f. 3 v.

Nicolas de Nonancourt, 1284-88. Sermons in MSS. lat. 15952, ff. 277 v (also in 14961, f. 135), 279; 16252, f. 279. A 'sermo cancellarii' in MS. lat. 15952, f. 113 (and anonymously in MS. lat. 14899, f. 109), is attributed to him by Hauréau.

Bertaud de St. Denis, 1288-95. But one of his sermons is known: MS. lat. 14947, f. 210 (also in MSS. lat. 15005, f. 113, and 15129, f. 191). Cf. *Histoire littéraire*, xxv. 317-320; xxvi. 439; *Journal des savants*, 1889, p. 303; 1891, p. 302.

Sermons of anonymous chancellors who have not been identified are in MSS. lat. 568, f. 190; 10968, f. 104; 12418, ff. 109, 110; 15527, f. 1; 15952, ff. 107-108; 16502, ff. 26, 84 v, 124. The editors of the *Chartularium* declare that various sermons of Aimery de Veire, chancellor from 1249 to circa 1263, are extant, but none were known to Hauréau nor have I been able to discover any. The sermons in MS. lat. 2516A, of which Lecoy de la Marche conjectures Aimery to have been the author, are the work of Philip the Chancellor (*Journal des savants*, 1890, p. 249).

¹ Prévostin, B.M.; Add. MS. 18335, f. 14; Gautier de Château-Thierry, MS. lat. 15955, f. 429; and Arras, MS. 329, f. 3 v; Eudes de Châteauroux, MS. lat.

lessons of the Lord's school and those of the Devil's,¹ but in such cases the audience is assumed to be sufficiently familiar with the studies mentioned, and the weight of exposition is put upon the corresponding virtue or vice; and even where the account is more specific, it offers interest as an expression of the preacher's attitude toward learning rather than as a description of particular subjects. The all-important study, according to the preachers, is of course theology, 'Madame la Haute Science' of the thirteenth century,² supreme above all other studies, which may be valuable as disciplines but do not deserve to be studied for their own sakes.³ The arts are merely preparatory to theology; ⁴ indeed the *trivium* affords a sufficient preparation, since "the branches of the *quadrivium*, though containing truth, do not lead to piety."⁵ "The sword of God's word is forged by grammar, sharpened by logic, and burnished by rhetoric, but only theology can use it." Some students, however, use up the blade in putting on the edge;⁶ others give the best years of their life to fine speaking⁷ or to the study of the stars,⁸ coming

15959, f. 240 v; Barthélemy de Tours, Hauréau, iv. 35. Cf. Philip 'de Grève,' in *Psalterium*, i, f. 311 (Paris, 1522); Jacques de Vitry, in Pitra, ii. 365.

¹ Jean d'Orléans, Munich, Cod. Lat. 23372, p. 39; anonymous Dominican, *Journal des savants*, 1916, p. 553.

² Henri d'Andeli, *La bataille des Sept Arts*, line 79 (ed. Paetow, p. 43).

³ 'Exercitandus et exercendus est animus in aliis scienciis, et in logicis et in naturalibus et in moralibus, secundum uniuscuiusque possibilitatem. Ipsa etiam scientia iuris, maxime iuris canonici, non parum neccessaria sacre scripture doctoribus. Licet autem predicta discantur ante ipsam, finaliter tamen addiscenda sunt propter ipsam.' Philip the Chancellor (?), 'ad scolares,' Troyes, MS. 1099, f. 38.

⁴ See the passages from sermons cited by Denifle, *Universitäten*, i. 100.

⁵ Jacques de Vitry, in Pitra, *Analecta novissima*, ii. 368, and Lecoy de la Marche, *Chaire française*, p. 458, note.

⁶ 'Gramatica fabricat gladium verbi Dei, logica ipsum acuit, rethorica ipsum polit, et theologia ipso utitur et ipso percutit; sed quidam scolares superintendunt fabricationi, id est gramatice, alii acutioni in tantum ipsum acuendo quod totam aciem auferunt ei.' Robert de Sorbon (?), MS. lat. 15971, f. 198.

⁷ Gautier de Château-Thierry, MS. lat. 15959, f. 437, col. 1.

⁸ 'Est alia quorundam sapientia qui scire complexiones argumentationum, deceptiones sophismatum, secreta celi rimantur, motus astrorum, cursus planetarum. In his tamen non adeo reprehensibiles invenio sacerdotes sed quosdam qui etatem suam in his consumunt, quorum ingenium in talibus desudant; semper discunt et nunquam ad scientiam veritatis proveniunt.' Pierre de Poitiers, MSS. lat. 12293, f. 101 v; 14593, f. 146 v, 320 v.

in their old age with hard hearts to theology, which should be the wife of their youth.¹ Some neglect theology for geometry² or for the works of the philosophers,³ so that even when they reach theology, they cannot be separated from their Aristotle,⁴ but read his forbidden books in secret⁵ and corrupt their faith.⁶ The chief menace, however, to the pre-eminence of theology seems to have been the study of the canon law, after 1219 the only branch of jurisprudence regularly represented at Paris. The rapid development of the judicial and administrative side of the ecclesiastical system in this period created a considerable demand for men trained in law, and many are the denunciations uttered by the theologians against those who forsake the waters of sacred scripture for the Abana and Pharpar of the decretists⁷ and are advanced to the best places in the church through the seductions of their Devil's rhetoric.⁸

¹ Philip 'de Grève' in *Journal des savants*, 1894, p. 430; anonymous Dominican, *ibid.*, 1916, p. 555.

² 'Multi proponunt librum geometrie libro theologie.' Guiard de Laon, MS. lat. 16471, f. 221.

³ 'Tercia sollicitudo mala est nimie curiositatis studendo in libris philosophorum et pretermittendo theologiam.' Jean d'Orléans, MS. lat. 14889, f. 84 v; also anonymous Dominican, *Journal des savants*, 1916, p. 555. For the different view of an eminent philosopher, Jean de La Rochelle, see Hauréau, *Histoire de la philosophie scolastique*, part 2, i. 194. An amusing instance of the rivalry of Nominalists and Realists is given by Greven, *Jakob von Vitry*, no. 105, and by Frenken, no. 102.

⁴ Jean de St. Gilles, in Hauréau, vi. 234.

⁵ Guiard de Laon, in *Journal des savants*, 1893, p. 370.

⁶ Jacques de Vitry, in Hauréau, *Philosophie scolastique*, part 2, i. 108, note.

On the standard authorities in the various subjects at Paris cf. the following passage from a sermon of Friar Bartholomew of Bologna: 'Aristotili creditur in logica, Galieno in medicina, et Tullio in rethorica, et similiter de aliis; et esset opprobrium alicui quod in grammatica aliquid diceret contra precepta Prisciani et in logica contra precepta Aristotilis et sic de aliis scientiis.' Bodleian, Ashmolean MS. 757, ff. 367, 403 v.

⁷ Philip the Chancellor (?), Troyes, MS. 1099, f. 37.

⁸ 'Leges . . . multi audiunt ut volare possint ad dignitates.' Jean de Blois, MS. lat. n.a. 338, f. 110 v. Hauréau, vi. 226, 228; *Histoire littéraire*, xxvi. 394; *Journal des savants*, 1893, p. 368. Cf. Dante, *Paradiso*, ix. 133 ff., xii. 82-83; Caesar of Heisterbach, in Vienna S. B., cxliv, no. 9, p. 79. Robert de Sorbon tells the story of a woman who supposed that her son was studying theology at Paris when he was really studying canon law, and who burst into tears on his return, saying, 'Credebam quod filius meus deberet esse in servicio Dei et deberet ire ad scientiam Dei et quod esse deberet unus magnus predicator, et el vay a crotalas (volebat dicere ad decretales).' MS. lat. 15971, f. 167.

On the general feeling toward lawyers in this period cf. Étienne de Bourbon,

The utilitarian motive appears not only in such obviously 'lucrative' studies as law and medicine,¹ but likewise in theology and arts, the study of which was the natural road to ecclesiastical preferment. The chief hope of many students lay in securing a good benefice or prebend,² to which end they would toil early and late, since a prebend of a hundred livres might depend upon remembering a single word at the examination.³ Favouritism also played its part in the distribution of patronage, and great was the popularity of those masters who had the ear of bishops or could exert other influence on behalf of their scholars,⁴ for one who had reached the episcopal dignity might easily forget his former room-mate at Paris.⁵ Many who had the good fortune to get benefices remained at Paris to enjoy them,⁶ a form of non-residence which seems to have become a serious abuse by the thirteenth century, so that some students even held more than one benefice at the same time.⁷ Indeed a parish or cathedral appointment might come at the beginning as well as at the

nos. 438 ff.; the poem of Philip 'de Grève,' *De advocatis*, published in the *Archives des missions*, second series, iii. 288 (1866); anonymous Dominican, *Journal des savants*, 1916, p. 556; and the following passage from a collection of Paris sermons in the Library of St. Mark's (Fondo Antico, MS. 92, f. 193): 'Quondam ecclesia consuevit regi in pace per canones, modo regitur per advocatos, per quos fiunt plura mala quam per hereticos; et student in legibus dicentes quod canones non possunt sciri sine legibus.' Cf. Welter, *Tabula exemplorum*, p. 88.

¹ 'Omnes avaricie student, quia intermediis scienciis intendunt que sunt lucrative, scilicet medici, legiste, decretiste.' Robert de Sorbon (?), MS. lat. 15971, f. 198. On 'lucrative sciences,' cf. the bull *Super speculam* of Honorius III, *Chartularium*, i, no. 32.

² See the debate between the poor and the rich student published by Hauréau, vi. 306. Cf. also the forms of solicitation for benefices preserved in the student letter-writers: *supra*, p. 9, note 1.

³ Robert de Sorbon, in Hauréau, iv. 70. Cf. iv. 38; *Histoire littéraire*, xxvi. 436. So Albert de Reims: 'Sic laborat aliquis .xx. annis in studio, et quis est finis eius? Certe ut capiat muscam, id est prebendam.' St. Mark's, Fondo Antico, MS. 92, f. 261 v.

⁴ 'Scolares [curiositatem habent] de magistris qui habent favorem prelatorum.' Guiard de Laon, Amiens, MS. 284, f. 5 v. So Robert de Sorbon, *De consensientia*, p. 26; anon. in MS. lat. 16471, f. 118; Arras, MS. 329, f. 86.

⁵ Welter, *Tabula exemplorum*, p. 131.

⁶ Hauréau, vi. 209, 210, 213, 214, 230, 233, 237; Guiard de Laon, MS. lat. 15959, f. 14; Jean de Blois, MS. lat. n.a. 338, f. 111.

⁷ *Journal des savants*, 1893, p. 368; 1894, p. 436; cf. Welter, *Tabula exemplorum*, p. 134.

end of one's university career, being sometimes conferred upon ignorant youths, who at once hastened to Paris to secure some sort of an education—"like a physician who should take his pay, leave his patient, and come to the university to learn his medicine," says one preacher.¹

Too eager pursuit of learning for its own sake was in quite as much disfavour with the preachers as were ambition and non-residence. Scholars are constantly warned against the vanity of much study and against the sins of pride or false doctrine which may arise from wandering beyond the limits of modest attainment.² "Clerks busy themselves with eclipses of the sun, but fail to observe the darkening of their own hearts by sin."³ Far better is it that they should seek to know themselves than to search out the nature of animals, the virtue of herbs, or the courses of the stars.⁴ The doves know well the golden rule, yet they have never been at Paris or heard lectures on the *Topica*.⁵ This doctrine is enforced by stories of masters struck dumb to punish their conceit⁶ and of ambitious scholars dead before

¹ 'Contra illos qui tunc primo incipiunt studere et addiscere [MS. addicere] cum habent curam animarum, similes medico qui recepto salario dimisso infirmo vadit ad studium addiscere medicinam.' MS. lat. 15971, f. 198. Cf. Hauréau, iii. 243; vi. 58. An example of this practice from the early part of the twelfth century is that of Otto of Freising: SS., ix. 610. In 1254 two canons of Mainz, who were banished from Germany for stealing, were permitted to receive revenue from their prebends if they would study at Paris. Böhmer-Will, *Regesta archiepiscoporum Moguntiensium*, ii. 322, no. 78. Cf. the form of petition to the Pope for two benefices with permission to study at Paris or elsewhere in a brief formulary of the *officialité* of Rouen, MS. lat. 18224, f. 283 (on the MS. see my paper in the *Mélanges Paul Fournier*, Paris, 1929); and the papal registers, *passim*.

² Jacques de Vitry, in Pitra, *Analecta novissima*, i. 362; Guiard de Laon, MS. lat. 16488, f. 377 v; Prévostin, in *Mélanges Julien Havet*, p. 302; and Lacombe, p. 40.

³ 'Querunt clerici de eclipsi solis sed de eclipsi solis spiritualis que contingit in cordibus eorum per peccatum non querunt.' Robert de Sorbon, MS. lat. 15971, f. 167. He alludes to the study of the stars and the movements of the heavens in the same MS., ff. 171 v, 195. So Gautier de Château-Thierry, MS. lat. 15955, f. 429; MS. lat. 16488, f. 410.

⁴ Idem, MS. lat. 15951, f. 185; MS. lat. 16488, f. 399.

⁵ 'Hanc regulam bene sciunt columbe que nunquam studuerunt Parisius nec audiverunt Thopica.' Idem, MS. lat. 16471, f. 79; MS. lat. 16507, f. 39.

⁶ Robert de Sorbon, MS. lat. 15971, f. 198, translated in Lecoy de la Marche, *L'Esprit de nos aïeux*, p. 279. Robert tells as the counterpart of this story the

their time, after they had studied so hard in the hope of becoming bishop that they would never go out into the fields with their companions,¹ or had put off entering monastic life till they should have completed their full course at Paris, the course in medicine at Montpellier, and seven years of law at Bologna.² The most popular story of this sort was that of a Paris student who appeared after death to his master, clad in a cope of parchment covered with fine writing. In reply to the master's question he said that the writing consisted of the sophisms and vain inquiries upon which he had spent his time, and that the cope was a heavier load to carry than the tower of Saint-Germain-des-Prés, near which he and the master stood. As proof of the inward fire which tormented him he let fall a drop of perspiration which pierced the master's hand like an arrow and left a permanent opening in it; whereupon the master abandoned the vain croakings and cawings of the schools and joined the Cistercians.³ So a certain archdeacon who came to Paris to study theology, overcome by the number of books and the length of the course of study, declared that he could more easily become a good man than a good clerk, and forthwith took the vows of

instance of a successful master whose only preparation for lectures consisted in going to mass every morning.

¹ Hauréau, iv. 37.

² 'Clericus quidam Parisius scholaris cum quodam socio suo in una domo et camera manens inspiratus a Deo deliberavit intrare religionem et socium suum ad hoc inducere. Quod renuens socius ait se velle adhuc esse Parisius per triennium et fieri magister, iterum morari apud Montem Pessulanum et fieri magister in medicina, iterum morari Bononie per septennium et fieri dominus legum. Summo mane surgens alius et veniens ad lectum ut acciperet licentiam ab eo invenit eum morte subitanea percussum qui disposuerat vivere tantum.' Tours, MS. 468, f. 78; B.N., MS. Baluze 77, f. 175.

³ Jacques de Vitry, ed. Crane, p. 12. On the widespread popularity of this *exemplum* see Crane's note (p. 146); Herbert, p. 30; and Hauréau, "Les Récits d'Apparitions dans les Sermons du Moyen-Âge," in *Mémoires de l'Académie des Inscriptions*, xxviii, 2, pp. 239 ff. It has been shown that the original of this story was a master at Oxford, Serlon of Wilton, and that the vision antedates 1154. See Schwob in *Comptes-rendus de l'Académie des Inscriptions*, 1898, p. 508.

There is also a curious story of a stupid student who is made miraculously clever by Satan. After his early death devils take his soul to a deep valley and torment it by playing ball with it, but he returns to life and becomes a holy abbot. Caesar of Heisterbach, ed. Strange, i. 36.

religion.¹ A current type of the conceited doctor was he who announced that early the next morning he would 'determine' a question of theology as subtly as Christ himself, but when the hour came had forgotten even the alphabet.² Another master, who declared that he understood the Pauline Epistles better than St. Paul himself, lost all his learning forthwith, until a girl was appointed as his tutor who with difficulty succeeded in teaching him the seven penitential psalms.³

Nothing in these Paris sermons is more interesting than the insight they afford into a phase of the university's life concerning which we have otherwise but little information, namely the nature of the examinations and the preparation for them. On this point evidence is found mainly in the sermons of Robert de Sorbon, and particularly in his treatise *On Conscience*,⁴ which is really an expanded sermon based upon an elaborate and suggestive parallel between the examination for the master's degree and the last judgement. Taking as his text Job's desire that his "adversary had written a book,"⁵ and outlining his headings in the approved fashion of his time, Robert begins with the statement that if any one decides to seek the *licentia legendi* at Paris and cannot be excused from examination—as many of the great, by special favour, are—he would much like to be told by the chancellor, or by some one in his confidence, on what book he would be examined. Just as he would be a crazy student indeed, who, having found out which book this was, should neglect it and spend his time on others, even so is he mad who fails to study the book of his own conscience, in which we shall

¹ Welter, *Tabula exemplorum*, p. 74, no. 278. Cf. Humbert de Romans, in *Maxima bibliotheca patrum*, xxv. 633.

² *Miscellanea Ehrle*, i. 181. Cf. *Antonianum*, ii. 213, no. 2.

³ *Histoire littéraire*, xxxi. 54; *Études Franciscaines*, xxx. 662 (1913). See Herbert, p. 660; J. Klapper, *Erzählungen des Mittelalters* (Breslau, 1914), pp. 349–350.

⁴ Robert de Sorbon, *De conscientia et de tribus dietis*, ed. Chambon (Paris, 1903). The old editions of Marguerin de la Bigne (*Maxima bibliotheca patrum*, xxv. 346–352) and Du Boulay (*Historia Universitatis Parisiensis*, iii. 225–235) are very faulty. Miss Dorothy L. Mackay has now written on "Le système d'examen du XIII^e siècle d'après le *De conscientia* de Robert de Sorbon," in *Mélanges Ferdinand Lot* (Paris, 1925), pp. 491–500.

⁵ Job, xxxi. 35, where the rendering of the Vulgate naturally suggests Robert's treatment: 'Librum scribat mihi ipse qui iudicat.'

all, without exception, be examined at the great day. Moreover, if any one is rejected by the chancellor, he may be re-examined after a year, or it may be that, through the intercession of friends or by suitable gifts or services to the chancellor's relatives or other examiners, the chancellor can be induced to change his decision; whereas at the last judgement the sentence will be final and there will be no help from wealth or influence or stout assertion of ability as canonist or civilian or of familiarity with all arguments and all fallacies. Then, if one fails before the chancellor of Paris, the fact is known to but five or six and the mortification passes away in time, while the Great Chancellor, God, will refute the sinner "in full university" before the whole world. The chancellor, too, does not flog the candidate, but in the last judgement the guilty will be beaten with a rod of iron from the valley of Jehoshaphat through the length of hell, nor can we reckon, like idle boys in the grammar schools, on escaping Saturday's punishment by feigning illness, playing truant, or being stronger than the master, or like them solace ourselves with the thought that after all our fun is well worth a whipping. The chancellor's examination, too, is voluntary; he does not force any one to seek the degree, but waits as long as the scholars wish, and is even burdened with their insistent demands for examinations. In studying the book of our conscience we should imitate the candidates for the license, who eat and drink sparingly, conning steadily the one book they are preparing, searching out all the authorities that pertain to this, and hearing only the professors that lecture on this subject, so that they have difficulty in concealing from their fellows the fact that they are preparing for examination. Such preparation is not the work of five or ten days—though there are many who will not meditate a day or an hour on their sins—but of many years.¹ At the examination the chancellor asks, "Brother, what

¹ 'Putatis vos quod si unus homo fuerit per .x. vel per .v. dies ad unam scientiam, quod cancellarius tam cito det licentiam? Certe non, immo oportet quod clerici multis diebus et noctibus et multis annis studeant. Sed multi sunt qui vix volunt una die vel una hora de suis peccatis cogitare.' MS. lat. 16481, f. 154; sermon of Amand de Saint-Quentin preached at the Madeleine on the fourth Sunday in Lent, 1273. Cf. *Histoire littéraire*, xxvi. 455.

do you say to this question, what do you say to this one and this one?"¹ The chancellor is not satisfied with a verbal knowledge of books without an understanding of their sense,² but unlike the Great Judge, who will hear the book of our conscience from beginning to end and suffer no mistakes, he requires only seven or eight passages in a book and passes the candidate if he answers three questions out of four. Still another difference lies in the fact that the chancellor does not always conduct the examination in person, so that the student who would be terrified in the presence of so much learning often answers well before the masters who act in his place.³

If those who have studied their consciences thoroughly will have such difficulty in the great examination, how much worse will it be for those who have not studied at all? The moralist is thus led to consider where the book of conscience may be read, namely in confession, and to compare the necessity of frequent confession with the student's need of regular attendance upon his master's lectures. At Paris only he who goes to the schools at least twice a week and hears 'ordinary' lectures is considered a student, and only such can expect a master to demand their release if captured by the *prévôt* and imprisoned in the Châtelet;⁴ yet many there are who confess but once a year or at best make only a hurried confession (*cursorie*); these are not God's scholars and for them there will be no release from the *prévôt* of hell. As at Paris the best clerk is he who by diligent attendance upon lectures becomes able to answer questions which silence the

¹ 'Scitis qualiter probantur clerici Parisius? Queritur ab eo, Frater, qualiter diceretis ad istam questionem, et qualiter diceretis tu ad hoc et ad hoc; et secundum hoc quod respondet licenciatur vel refutatur.' Amand de S.-Quentin, *loc. cit.*

² 'Item si quis sciret literam librorum corditenus et nesciret sensum, non transiret examinationem cancellarii.' Robert de Sorbon, MS. lat. 16482, f. 309 v. Another allusion of Robert to the chancellor's examination is printed in Lecoy de la Marche, *La chaire française*, p. 457, note.

³ Robert here cites the instance of an abbot-elect examined before Guiard de Laon, bishop of Cambrai, who was so overcome that he could not even read his missal or say his *Pater noster*.

⁴ On the distinction between 'ordinary' and 'cursory' lectures at Paris see Rashdall, i. 426 ff.; and on the method of securing release from the Châtelet, the *Chartularium*, i, no. 197.

great teachers, so on the day of judgement some simple monk or *béguine* who has well pondered the book of conscience and frequently confessed will put to shame and derision great masters of arts or law or medicine or theology who have neglected these duties. What will it profit a man then to possess the learning of Aristotle and Priscian, of Justinian and Gratian, of Galen and Hippocrates and the rest, preserved on the skins of sheep or goats? If a master were to give his scholars new robes or assure them good prebends in a cathedral, he would have such a throng of scholars that no room could hold them, and other masters, however excellent, would be obliged to shut up shop—"put their fiddles under the bench"—for lack of hearers. Yet God gives to all his followers the garment of the new man and the prebend of his grace the day they enter his school, and, unlike certain proud masters who will lecture only to a large audience, he is willing to read to a single scholar. Many choose as confessors those who have been guilty of the same sin, yet only a fool would study his book with the poorest teacher of Paris, it being one of the glories of a student at his inception that he has studied under the best masters in the city. None but unworthy masters would imitate the jealousy of certain confessors who are unwilling to have their parishioners confess to others; indeed a good master will advise his pupils to attend the lectures of others, for it is scarcely possible to become a good clerk unless one has listened to several masters. Yet men should not avoid their own confessors and seek out strangers, but should follow the example of good students at Paris, who choose by preference masters who are compatriots and well known to them. In the day of judgement priests, as well as people, will be held responsible for the proper study of the book of conscience, just as the chancellor, when he hears on Saturday the lessons of the boys in the grammar schools, flogs the masters as well as the pupils if he thinks them to blame for the pupils' ignorance.

For the faults of the masters the preachers show little indulgence. Many begin to teach before they have studied long enough in the schools, an abuse which prevails in all faculties

but particularly in that of arts.¹ Such masters, says Jacques de Vitry, draw their lectures from books and closets, not from well stored minds, but they succeed in securing students none the less, by personal solicitation and friendship and even by hiring them to come.² The number of their scholars is the masters' pride,³ wherefore their class-rooms should be large and easily accessible; ⁴ to crowd their class-rooms they preach new and strange doctrines,⁵ and for money they will lecture even on Sundays and holy days.⁶ Masters there are, too, who make life easy for the scholars who live with them, letting them sleep late in the morning and roam about and amuse themselves freely,⁷ and even conniving at their vices.⁸ The great aim of the master is not to instruct his pupils but to appear learned and be called rabbi;⁹ many speak obscurely in order to appear more profound,¹⁰ and even pay the beadles to magnify them and cover

¹ 'Quidam scolares ante tempus ablactari volunt et fiunt magistri, et hoc in quaque facultate.' Philip the Chancellor, sermon of 21 August, 1226, Avranches, MS. 132, f. 243 v. 'Multi qui adhuc deberent discere presumunt docere, quod vicium maxime in artibus inolevit.' The same, B.M., MS. Royal 8. F. 13, f. 130 v. Cf. his Psalter, edition of 1522, f. 8 v; Nicolas de Nonancourt, MS. lat. 16252, f. 279 v.

² Pitra, *Analecta novissima*, ii. 359; Lecoy de la Marche, *Chaire française*, p. 452. The hiring of scholars is also found at Bologna; see Chapter I, *ante*, p. 28.

³ Guiard de Laon, Amiens, MS. 284, f. 5 v. Cf. Robert de Sorbon, MS. lat. 15971, f. 176 v: 'Vidi Parisius multos magistros qui dimittebant legere quia non habebant multos auditores.'

⁴ 'Scola est exposita cuilibet transeunti ut sciatur. . . . Item est fenestrata. . . . Item debet esse lata ut multos capiat.' Guiard de Laon, MSS. lat. 16471, f. 10; 16507, f. 8 v. Cf. Buoncompagno's description of an ideal Bolognese lecture-hall: Gaudenzi, *Bibliotheca iuridica medii aevi*, ii. 279.

⁵ 'In discipulis coluntur magistri qui inaudita dicunt.' Guiard de Laon, MS. lat. 15959, f. 296 v. Crane, *Jacques de Vitry*, pp. 10, 11.

⁶ 'Illi qui pro argento diebus dominicis et festivis legunt debent saluti anime sue intendere ut laicis bonum exemplum ostenderent.' Gautier de Château-Thierry, MS. lat. 15959, f. 437, col. 2.

⁷ 'Magistri illi qui blandiuntur clericis suis et adulantur et dant eis licenciam spaciandi et ludendi et voluntatem faciendi habent plures scolares; sed illi qui artant suos timentur et paucos habent.' Philip the Chancellor, Bibliothèque Mazarine, MS. 1009, f. 123 v; B.M., MS. Royal 8. F. 13, f. 271 v.

⁸ Haureau, vi. 246. Cf. Jean de Montlhéry, Merton College, MS. 237, f. 227 v: 'Innocens juvenis mittitur quandoque Parysius et exemplo mali socii vel forte magistri sui ita corumpitur et inficitur quod omnibus diebus vite sue non carebit illo vicio.'

⁹ 'Nec magistri ad utilitatem audiunt, legunt, nec disputant, sed ut vocentur Rabbi.' MS. lat. n.a. 338, f. 197.

¹⁰ MS. lat. 16507, f. 48 v.

up their ignorance.¹ Their quarrels are like cock-fights² and they are so jealous that they seek to draw away one another's scholars³ and, even when detained by illness, will not suffer their pupils to hear lectures from another.⁴ A more human figure is the master who stammered and could not pronounce the letter *r*.⁵ Abaelard is still a vivid tradition in the *exempla*.⁶

When we turn from studies and teachers to the students themselves, we find the material contained in the sermons fuller and more satisfactory. The ideal scholar of the pulpits was a rather colourless personage, obedient, respectful, eager to learn, and keeping very much to himself.⁷ In order to win the favour of the master and his personal instruction,⁸ one should be assiduous at lectures, quick at learning, and bold in debate, and should also attract other pupils to the master.⁹ When, in the Lenten season, a master in theology takes the chair and proposes a question, to which one of the bystanders replies, it is a mark of deference and honour to the respondent if the master determines the question in accordance with his reply.¹⁰ Robert de Sorbon lays down six rules for successful study: a fixed time for each subject, concentrated attention, memorizing specific things, note-taking, conference with others, and finally prayer, "which availeth much for learning."¹¹ The good student should

¹ Hauréau, vi. 124.

² Philip 'de Grève,' *Notices et extraits*, xxi, 2, p. 193; *Journal des savants*, 1894, p. 431; Lecoy de la Marche, *Chaire française*, p. 452; Valois, *Guillaume d'Auvergne*, p. 52.

³ Pitra, *Analecta novissima*, ii. 362.

⁴ 'Contra magistros qui cum aliquando sint in vinculis infirmitatis vel alicuius occupationis non possunt sustinere quod discipuli sui alium audiant licet meliorem.' Guiard de Laon, MS. lat. 15951, f. 14.

⁵ Greven, no. 88; Frenken, no. 85.

⁶ Greven, no. 53; Frenken, no. 51.

⁷ 'Magistri propter quatuor diligunt discipulos: . . . primo quia obedientes; . . . secundo quia timorosi; . . . tercio quia solitarii, non in strepitu et confabulatione cum aliis; . . . quarto quia de addiscendo solliciti.' Guiard de Laon, MS. lat. 16471, f. 112 v.

⁸ 'Mos est apud scolares quod discipuli cariores ab ipsis magistris edocentur.' Guiard de Laon, MS. lat. 16471, f. 253.

⁹ Anonymous, MS. lat. 16471, f. 118 v.

¹⁰ Anonymous sermon cited by A. De Poorter, "Catalogue des manuscrits de prédication médiévale de la Bibliothèque de Bruges," in *Revue d'histoire ecclésiastique*, xxiv. 74 (1928). Cf. p. 114, *ibid*.

¹¹ Lecoy de la Marche, *Chaire française*, p. 453.

imitate Christ among the doctors, hearing many masters, always seeking good teachers without regard to their fame or place of birth, and listening as well as asking questions—unlike those who will not wait for the end of a question but cry out, “I know what you mean.”¹ Even when he goes to walk by the Seine in the evening, the good student ought to ponder or repeat his lesson.²

It need scarcely be said that the students of mediaeval Paris did not as a rule spend their time in such studious promenades; indeed if further evidence were needed to dispel the illusion that a mediaeval university was an institution devoted to biblical study and religious nurture, the preachers of the period would offer sufficient proof. We have already seen how the theological faculty, the only one dealing directly with religious subject-matter, was suffering from the competition of the canon law and other ‘lucrative’ subjects, and it is on every hand apparent that the morals of at least a considerable portion of the student body were as profane as their studies.³ Students, we are told, care nothing for sermons, and for most of them holy days are only an occasion for idleness;⁴ they remain outside during mass, and like their masses short and their lectures and disputations long.⁵ If their voice is in the choir, their mind is without, in the street, in bed, or at the table—as the rhyme ran,⁶

Vox in choro, mens in foro
Vel in mensa vel in thoro.

Confession they likewise neglect; instead of seeking to have his soul cleansed by confession on his arrival at Paris, the student hastens to the laundress.⁷ Dominicans like Étienne de Bourbon

¹ ‘Contra illos qui nolunt audire antequam respondeant sed clamant dicentes, Bene scio quid vultis dicere.’ Robert de Sorbon, MS. lat. 15971, f. 146 v. Cf. Humbert de Romans, *Maxima bibliotheca patrum*, xxv. 632.

² ‘Sic bonus scholaris sero debet ire spaciatur ad ripam Secane, non ut ibi ludatur sed lectionem repetat vel meditetur.’ MS. lat. 15971, f. 198.

³ Cf. Langlois, *Questions d’histoire et d’enseignement*, p. 5; Rashdall, ii. 700–702.

⁴ Bourgain, *Chaire française*, p. 287; *Journal des savants*, 1893, p. 372.

⁵ ‘Contra illos qui gaudent de brevitate missarum et longitudine lectionum et disputationum et foris sunt dum cantatur missa.’ Gautier de Château-Thierry, MS. lat. 15955, f. 228, col. 4. ⁶ MS. lat. 15971, f. 185.

⁷ ‘Scolaris quando venit Parysius statim currit ad lotricem ut lavetur, non vadit ad confessionem ut mundetur eius cor.’ Jean de Monthéry, Merton

attend vespers, at Notre-Dame or elsewhere,¹ but a miracle or special providence is often needed in order to bring students or masters into this order,² and one subprior complains that parents are more anxious to keep their sons away from the friars than from the brothel or the tavern.³ "The student's heart is in the mire," says another Dominican, "fixed on prebends and things temporal and how to satisfy his desires."⁴ "He is ashamed to sin against the rules of Donatus, but not to violate the law of Christ."⁵ He is much more familiar, says Robert de Sorbon, with the text of the dice, which he recognizes at once, no matter how rapidly they are thrown, than with the text of the Old Logic—yet the gloss of the dice he forgets, which is, Swear, steal, and be hanged. "This very week within two leagues of Paris a priest hanged himself after gambling away ten livres and his horse. Such is the fate of gamesters."⁶ Many students come to Paris like the prodigal to a far country, and indulge in practices they would not even think of at home, wasting in riotous living not only their own portion but the substance of their churches.⁷

College, MS. 237, f. 228. For other relations between students and *lotrices*, cf. the following, from the sermon of an anonymous chancellor: 'Sic hodie faciunt lotrices Parisius. Bene sciunt totundere fatuos clericos. Illos ergo qui in luxuria vivunt Dallida expoliât et isti tonduntur.' MS. lat. 16502, f. 86 v.

¹ Ed. Lecoy de la Marche, pp. 317, 363.

² *Ibid.*, pp. 44, 86, 222, 345.

³ Hauréau, iii. 287.

⁴ 'Scolaris habet cor ad lutum, ad temporalia, ad prebendas et huiusmodi, et quomodo possit suam explorare libidinem [MS. libinem].' Jean de Monthéry, Bodleian, Ashmolean MS. 757, f. 160 v.

⁵ Quoted from St. Augustine in MS. lat. 15959, f. 437, col. 1; MS. lat. 15955, f. 430. Cf. Robert de Sorbon in Hauréau, v. 57.

⁶ 'Hoc faciunt aleatores et ludentes cum taxillis hodie, namque multi sciunt melius textum taxillorum, id est numerum punctorum. Quamcunque cito proiciantur statim vident asardum, et huiusmodi; unde melius sciunt textum taxillorum quam textum logice veteris. Tamen glosam nesciunt. Glosa taxillorum est hec: Iurabo, furabor, suspendar. Sic accidit ista septimana prope Parisius ad duas leucas de quodam sacerdote qui forte luserat in iuventute et modo non erat oblitus. . . Lusit .x. libras et equum suum, post suspendit se. Hic est finis taxillorum.' MS. lat. 15971, f. 68. So in the same MS., f. 117 v, he says: 'Ludis ad talos, ribaldus eris. Probatio: Qui studet in libris gramaticalibus gramaticus vult esse; ergo qui studet in libris ribaldorum, scilicet ludendo cum decii, ribaldus vult esse.' Cf. Hauréau, "Les Propos de Maître Robert," p. 141.

⁷ 'Sic scolares abeunt in regionem longinquam cum veniunt Parisius et expendunt aliquando non solum portionem propriam sed paternam et maternam

What the forms of riotous living were which prevailed among students the preachers do not hesitate to specify, sometimes with more particularity than modern taste permits. Gambling is mentioned,¹ even on the altars of churches,² and feasting and free indulgence in the wine-cup,³ as well as wild carouses in the streets and the visiting of disreputable resorts,⁴ which were often found in close proximity to the class-rooms.⁵ Many of the students led a life that was by no means celibate,⁶ and there are allusions to the darkest of monastic vices.⁷

et fraternam necnon bona ecclesie.' Guiard de Laon, Arras, MS. 329, f. 59 v; MS. lat. 16471, f. 39. Pierre de Poitiers, in Bourgain, *Chaire française*, p. 27, note, and p. 293 (where *inde* should be read in place of the *mihi* from which Bourgain infers the chancellor's feeling of responsibility for the scholars' morals); Hauréau, vi. 256; Gautier de Château-Thierry, MS. lat. 15959, f. 434 v.

¹ Besides the passages from Robert de Sorbon just quoted, see Crane, *Jacques de Vitry*, p. 8; and Tours, MS. 468, f. 80, printed below, p. 68, note 1. The more common offences committed by students against ecclesiastical discipline are illustrated by a comprehensive form of the papal penitentiary, or letter of 'Licet non credas,' covering acts which may have been committed by a clerk when a student and have afterward been forgotten: 'Quod olim in diversis terris, locis et studiis generalibus vel aliis fuisti, in clericos seculares, presbyteros vel alias religiosas et ecclesiasticas personas, interdum causa ludi, correctionis vel alia, irato animo manus temere violentas usque et citra sanguinis effusionem iniciendo absque alio excessu difficili vel enormi, arma portando, ad taxillos et alios illicitos ludos ludendo, tabernas, ortos, vineas, prata et alia loca vetita et inhonesta intrando . . . nec non doctoribus, magistris, bedellis et bacallariis salaria statutis terminis non solvendo.' Formulary of Benedict XII, in the Vatican library, MS. Ottoboni 333, f. 72 v. A somewhat different text is published from Tours, MS. 594, by Denifle in the *Archiv für Literatur- und Kirchengeschichte des Mittelalters*, iv. 207. On these formularies see my article, "The Sources for the History of the Papal Penitentiary," in *American Journal of Theology*, ix. 421-450 (1905).

² *Chartularium*, i, no. 470.

³ See, for example, Pierre le Mangeur in Bourgain, *Chaire française*, p. 292. The best evidence on this point is of course to be found in the drinking-songs and in the records of the nations.

⁴ Prévostin, in Hauréau, iii. 166; *Mélanges Julien Havet*, p. 303; Lacombe, p. 40; Lecoy de la Marche, *Chaire française*, p. 460. See also the passages cited below in regard to the carrying of arms.

⁵ See on this point the well known passage of Jacques de Vitry, *Historia occidentalis* (ed. Douai, 1597), p. 278; reproduced in Rashdall, ii. 690; and on its interpretation, Denifle, *Universitäten*, i. 672.

⁶ Jacques de Vitry, *loc. cit.*; Pitra, *Analecta novissima*, ii. 434; Hauréau, iii. 319; Étienne de Bourbon, pp. 50, 402, 406; *Histoire littéraire*, xxvi. 458; and the characteristic story told in Auxerre, MS. 35, f. 127 v.

⁷ Jacques de Vitry, *loc. cit.*; Gautier de Château-Thierry, in Hauréau, vi. 210, and *Histoire littéraire*, xxvi. 393; anonymous Minorite, Hauréau, vi. 257.

Whatever their other virtues, the students of mediaeval Paris were not distinguished for their love of peace and quiet. Theirs was a rough and violent age, and what with the *prévôt's* men and the townsmen, the monks of St. Germain and the friars, there was no lack of opportunity for a brawl, in which the students were only too likely to be the aggressors. "They are so litigious and quarrelsome that there is no peace with them; wherever they go, be it Paris or Orleans, they disturb the country, their associates, even the whole university."¹ Many of them go about the streets armed, attacking the citizens, breaking into houses, and abusing women.² They quarrel among themselves over dogs,³ women, or what-not, slashing off one another's fingers with their swords,⁴ or, with only knives in their hands and nothing to protect their tonsured pates, rush into conflicts from which armed knights would hold back.⁵ Their compatriots come to their aid, and soon whole nations of students may be involved in the fray.⁶ Some of these attacks

¹ 'Videbitis etiam aliquos sic rixosos, discolos, et litigiosos quod nullo modo potest cum eis haberi pax. Ubicunque sunt, Parisius vel Aurelianis, perturbant totam terram et totam societatem cum qua sunt, immo totam universitatem.' Jean de Monthéry, MS. lat. 14955, f. 140 v; translated in *Histoire littéraire*, xxvi. 437. On the litigiousness of the time cf. Philip the Chancellor (Avranches, MS. 132, f. 242; Troyes, MS. 1099, f. 138); 'Tanta increvit malicia ut laicus laicum, clericus clericum, etc., scholaris scolarem ad remotos iudices trahat, non ut consequatur iusticiam sed ut adversarius redimat vexationem.'

² 'Qui portant arma . . . qui frangunt hospicia, mulieres rapiunt, inter se aliquando se occidunt, hii sunt carnifices diaboli, non clerici.' Gautier de Château-Thierry, MS. lat. 15959, f. 436, col. 4. 'Hoc est contra petulantiam quorundam vitulorum, id est scolarium, non Dei sed diaboli, qui quasi vituli prosiliunt de nocte discurrentes.' Guiard de Laon, MS. lat. 15959, f. 13 v. Philip 'de Grève,' *Journal des savants*, 1894, p. 430. Prévostin, in Hauréau, iii. 166; Lacombe, p. 40. On students who carry arms cf. the *Chartularium*, i, nos. 213, 426, 470; and on quarrels with tradesmen, John of Garland, *Dictionarius*, ed. Scheler, c. 35.

³ Hauréau, vi. 250.

⁴ 'Heu hodie non precinguntur scolares hoc lintheo sed potius gladio belli. . . . Nostri clerici sero cum gladiis invicem pugnarunt et quidam ex illis digitos alterius amputant.' Philip the Chancellor, MS. lat. n.a. 338, f. 155.

⁵ Remark attributed to Philip Augustus. Hauréau, vi. 250.

⁶ Anonymous Dominican, *ibid.*, and *Journal des savants*, 1916, pp. 554 f.; Nicolas de Nonancourt, Hauréau, iv. 157 (where, as in MS. lat. 16252, f. 279, the last sentence should begin, 'Ex certa malicia movent'). Hauréau strangely misunderstands the last passage as referring to the nations of Europe instead of to the nations of the university. Cf. also Rutebeuf, "Li Diz de l'Université de Paris," vv. 37-39 (ed. Kressner, p. 51).

are planned in advance at organized meetings of students,¹ which, according to Chancellor Philip, no impartial witness it is true, are largely given over to such matters. "In the old days," he says, "when each master taught for himself and the name of university was unknown, lectures and disputations were more frequent and there was more zeal for study. But now that you are united into a university, lectures and disputations are rare, things are hurried, and little is learned, the time taken from lectures being spent in meetings and discussions. In these assemblies, while the older heads are deliberating and legislating, the younger spend their time hatching the most abominable schemes and planning their nocturnal raids."² Outsiders might also indulge in these student escapades, donning the scholar's garb in order to escape arrest by the civil authorities.³ A town and gown riot might even lead to a cessation of all lectures, as in the great dispersion of 1229, when many left Paris for Orleans and Angers.⁴

¹ Eudes de Châteauroux, *Journal des savants*, 1890, p. 305. Cf., for the fourteenth century, *Charthularium*, ii, no. 1072.

² Translated by Hauréau in *Journal des savants*, 1894, p. 430. Philip expresses his opinion of the university organization in another sermon: 'Circumiiit scolas et invenit monstruositatem. Monstrum in uno corpore diversarum coniunctio naturarum. Quid est ergo ex diversis nationibus universitatem facere nisi monstrum creare? . . . Quattuor capita huius monstri sunt quattuor facultates, logice, phisice, canonici et divini iuris.' Mazarine, MS. 1009, f. 159 v; MS. lat. 15955, ff. 126 v-127.

³ 'Falsorum scolarium qui sub nomine scolarium et habitu flagitia perpetrant licentius quam scolares, quia prepositi non audent manus immittere.' Philip the Chancellor, Mazarine, MS. 1009, f. 57 v; MS. lat. 15955, f. 96 v; Rouen, MS. 615, f. 53 v.

⁴ The allusions of the preachers to the disturbances at Paris are seldom very specific (cf. Eudes de Châteauroux in Pitra, *Analecta novissima*, ii. 230, and Hauréau, ii. 119; Philip the Chancellor in Avranches, MS. 132, ff. 24, 263 v). There are, however, various references to the disorders of 1273 (Lecoy de la Marche, *Chaire française*, pp. 85, 451; Quéfif and Échard, *Scriptores Ordinis Prædicatorum*, i. 269); and some points of interest in regard to the dispersion of 1229 are indicated in a contemporary sermon of Chancellor Philip: 'Habebant scolares tamquam apes domos exagonas Parisius, id est studio competentes, edificabant favos quibus demulcebant affectum et illuminabant intellectum . . . Sed aspersum est origanum super loca ipsorum, . . . fugerunt et florigeras regiones lustraverunt ut quietem invenirent, suspirantes nihilominus ad loca dimissa, quia spes est quod bonus et prudens paterfamilias, scilicet summus pontifex, purget amaritudinem origanni ut ad loca propria revertantur. Felix locus et felix civitas que filios dispersos pie collegit, pie dico scilicet ut eos

More interesting than these general characterizations in which the sermons abound are the incidental allusions to the ordinary life of the thirteenth-century student. The preachers take us into the very atmosphere of the Latin quarter and show us much of its varied activity. We hear the cries ¹ and songs of the streets—²

Li tens s'en veit,
Et je n'ei riens fait;
Li tens revient,
Et je ne fais riens—,

the students' tambourines and guitars,³ their "light and scurrilous words," ⁴ their hisses ⁵ and handclappings and loud shouts of applause at sermons and disputations.⁶ We watch them as they mock a neighbour for her false hair ⁷ or stick out their

nutriret et postmodum matri restitueret, quia signum est quod talis nutrix non diligit dispersionem. Non sic autem illa que quos nutriret sibi retinere intenderet, ut Andegavis, de qua impletur illud Ieremie [xvii. 11], Perdix fovit que non peperit. . . . Videtur inter alias Aurelianis sic quos recepit habuisse, non tamquam emula sed tamquam nutrix et gerilla, et recte quia inter alias Parisiensis civitas soror est. . . . Ruben, filius visionis, scolares, . . . terra Moabitidis civitas Andegavis. . . . Bonus paterfamilias . . . scripsit regi ut scolariis iusticie plenitudinem exhiberet et eos in Betleem, id est domum panis que est Parisius, revocaret ac libertates eisdem a felicis memorie rege Philippo pie indultas liberaliter et inviolabiliter conservaret.' 'Sermo cancellarii Parisiensis quem fecit Aurelianis ad scolares de recessu scholarum a Parisius, quem fecit in vigilia Pasche.' Avranches, MS. 132, f. 340 v; Troyes, MS. 1099, f. 160 v. On the little known history of Angers in this period, cf. J. C. Russell, "An Ephemeral University at Angers (1229-34)," in *Colorado College Publication*, December, 1927, pp. 47-49.

¹ See the story in Étienne de Bourbon, p. 185, of the poor scholar who substituted the cries of dealers in old clothes for the words of the church service; and cf. the poem of Guillaume de la Villeneuve, "Les crieries de Paris," in Franklin, *Les cris de Paris* (Paris, 1887), p. 133.

² Hauréau, iii. 341; Étienne de Bourbon, p. 346.

³ *Histoire littéraire*, xxvi. 458.

⁴ 'Verba levita et scurrilia. Talia sunt verba multorum scholarum.' Richard, Minorite, in MS. lat. n.a. 338, f. 54. Cf. the story of the student who blasphemed against Abraham, Caesar of Heisterbach, ed. Strange, i. 192.

⁵ 'Dico de scolariis, quia multi peccant lingua aliter quam loquendo, sicut illi clerici qui sibilant.' Philip the Chancellor, Alençon, MS. 153, f. 58. Cf. Du Cange, under *sibillacio*.

⁶ Anonymous sermons in Hauréau, ii. 108; vi. 257.

⁷ 'Isabel, ceste queue n'est pas de ce veel.' *Ibid.*, iv. 177; Étienne de Bourbon, p. 239. Cf. *Miscellanea Ehrle*, i. 181.

tongues and make faces at the passers-by.¹ We see the student studying by his window,² talking over his future with his roommate,³ receiving visits from his parents,⁴ nursed by friends when he is ill,⁵ singing psalms at a student's funeral,⁶ or visiting a fellow-student and asking him to visit him—"I have been to see you, now come to my hospice."⁷

All types are represented. Of three Flemish students who discuss their future, one plans to become a master at Paris, one a Cistercian monk, and the third a jongleur.⁸ There is the poor student, with no friend but St. Nicholas,⁹ seeking such charity as he can find¹⁰ or earning a pittance by carrying holy water¹¹ or copying for others, in a fair but none too accurate hand,¹²—as thin as if he had just come from hell, or poor enough to sell his soul to the Devil,¹³—sometimes too poor to buy books or afford the expense of a course in theology,¹⁴ yet usually surpassing his more prosperous fellows, who, with every opportunity, have an abundance of books at which they never look.¹⁵

¹ 'Idem potest dici de scolaribus qui linguam protrahunt et naso subsannant et supercilium supprimunt digitum extendentes in derisione coram se trans-euntium.' Guiard de Laon, MS. lat. 15959, f. 135.

² Hauréau, iii. 341; Étienne de Bourbon, p. 346.

³ Tours, MS. 468, f. 78, printed above, p. 50, note 2.

⁴ See the story of the student who was ashamed to receive a visit from his father and made him eat with the servants. Munich, Cod. Lat. 23420, f. 170; Herbert, p. 649.

⁵ Odo of Cheriton, in Hervieux, *Fabulistes latins*, iv. 295.

⁶ Caesar of Heisterbach, ed. Strange, i. 37.

⁷ 'Nota quod socius quando socium visitavit, Veni ad vos, modo venite ad nostrum hospiciū.' Anonymous, MS. lat. 16505, f. 203 v.

⁸ Greven, no. 84; Frenken, no. 80.

⁹ 'Hinc est quod pauperes clerici qui non habent qui figant illos in ecclesia Dei, beatum Nicholaum invocent.' Eudes de Châteauroux, MS. lat. 16471, f. 48.

¹⁰ *Journal des savants*, 1887, p. 122; Lecoy de la Marche, *Chaire française*, p. 462.

¹¹ Jacques de Vitry, ed. Crane, p. 47, ed. Pitra, p. 451; Étienne de Bourbon, p. 446.

¹² 'Pauperes enim scolares manu sua propria sibi vel aliis scribunt, quod sibi fideliter, quod aliis pulcre et velociter.' Guiard de Laon, MS. lat. 15951, f. 372 v.

¹³ Herbert, pp. 83, 545.

¹⁴ Lecoy de la Marche, *loc. cit.* On the expense of a theological course cf. *supra*, p. 25.

¹⁵ 'Sepe visum est Parisius quod clerici qui vivunt de beneficio istorum clericorum divitum multi plus proficiebant in scientia et vita quam ipsi divites

There is the well-to-do student, who besides his books and desk will be sure to have a candle in his room,¹ and a comfortable bed with a soft mattress and luxurious coverings,² and will be tempted to indulge the mediaeval fondness for fine raiment beyond the gown and hood and simple wardrobe prescribed by the statutes.³ Then there are the idle and aimless, drifting about from master to master and from school to school and never hearing full courses or regular lectures, but spending their time looking out of the windows and watching the passers-by.⁴ Even among the laborious copyists are those, some of them Irish (*et maxime Ybernici*), who will drink up in one day all they have earned by a week of labour.⁵ Some, who care only

de quibus vivebant et a quibus victum recipiebant, et ita probi et magni clerici fiebant quod postea ipsi divites eis serviebant. . . . Non propter hoc dico quod vir religiosus non possit plus sibi proficere si sit sollicitus circa se quam secularis, sicut videmus de clerico divite. Non dico quin plus possit proficere in scientia et virtute si velit esse sollicitus de profectu suo quam pauper possit. Nec hoc est mirum, *car il a plus d'avantages* et melius habet victum suum et libros sibi necessarios et magistros magis paratos circa se.' Robert de Sorbon, Munich, Cod. Lat. 23372, pp. 124-125. 'Quidam habent multos et pulcros libros et bene paratos et nunquam ibi respiciunt. . . . Debent libros suos qui in eis nichil faciunt tradere pauperibus scholaribus qui libenter addiscunt.' Idem, MS. lat. 15971, f. 198.

¹ 'Si quis daret alicui scolari Parisius lumen per annum, multum diligeret eum.' Lecoy de la Marche, *Chaire française*, p. 461, note.

² Étienne de Bourbon, p. 29. There is an *exemplum* of a Paris student who dies and leaves his mattress to his companion to be given to the poor for the repose of his soul. The companion keeps the mattress for himself, whereupon he has a vision of the former owner lying in torment upon the hard, rough cords of a wooden bed; after he gives the mattress to the poor, he sees his friend lying in comfort upon a mattress. Jacques de Vitry, ed. Crane, p. 53, ed. Pitra, p. 452. Auxerre, MS. 35, f. 80 v.

On the furniture found at Paris in this period, see John of Garland, *Dictionarius*, ed. Scheler, cc. 55, 56. It is not so clear as Rashdall (ii. 668) supposes that c. 55 refers to student hostels.

³ *Chartularium*, i, nos. 20, 201, 202, 448, 501. See also the beginning of the poem 'De presbytero et logico,' in Hauréau, vi. 310; Wright, *Latin Poems attributed to Walter Mapes*, p. 251. There are allusions to the cope and hood in Hauréau, iv. 51; Étienne de Bourbon, p. 406; Jacques de Vitry, ed. Crane, p. 12. Jean de Montlhéry says: 'Scolaris bene custodit capam novam: pueri quandoque infingunt tibias suas in luto et dicunt se esse bene calciatos.' Merton College, MS. 237, f. 227 v. Cf. Humbert de Romans, *Maxima bibliotheca patrum*, xxv. 594.

⁴ Schönbach, in *Mittheilungen des historischen Vereines für Steiermark*, xlvi. 151; Owst, p. 332. Cf. Humbert de Romans in *Maxima bibliotheca*, xxv. 632.

⁵ 'Hoc maxime faciunt ebriosi quales sunt Parisius multi et maxime Ybernici,

for the name of scholar and the income which they receive while attending the university, go to class but once or twice a week, choosing by preference the lectures on canon law, which do not begin till nine in the morning¹ and thus leave them plenty of time for sleep.² Many eat cakes in the morning when they ought to be at study,³ or go to sleep in the class-rooms, spending the rest of their time drinking in taverns or building castles in Spain (*castella in Hispania*);⁴ and when it is time to leave Paris,⁵ in order to make some show of learning such students get together huge volumes of calfskin, with wide margins and fine red bindings, and so with wise sack and empty mind they go back to their parents. "What knowledge is this," asks the preacher, "which thieves may steal, mice or moths eat up, fire or water destroy?"; and he cites an instance where the student's horse fell into a river, carrying all his books with him.⁶ Some never go home, but continue to enjoy in idleness the fruits of their benefices.⁷ Even in vacation time, when the rich ride off with

qui quicquid scribendo in septimana conquirunt, totum una die potando consumunt. Nec de hoc corrigi possunt.' Servasanto da Faenza, *Liber de virtutibus et vitiis*, dist. vii, c. 4, printed by L. Olliger in *Miscellanea Ehrle*, i. 180.

¹ Ordinarily the first lecture of the day seems to have come at six. Rashdall, ii. 652.

² Jacques de Vitry, ed. Pitra, p. 363.

³ Hauréau, iv. 39, 248; Schönbach, *loc. cit.*, pp. 151 f. Hauréau (p. 39) quotes an adage from MS. lat. 16089:

Parisius locus egregius: mala gens, bona villa,
Nam duo pastilla pro nummo dantur in illa.

Cf. an anonymous Minorite, MS. lat. 15005, f. 160 v: 'Sunt enim solliciti in cibis delectabiles, unde libenter pastillant et huiusmodi.'

⁴ Eudes de Châteauroux, in Lecoy de la Marche, *Chaire française*, p. 463. Cf. Humbert de Romans, *Maxima bibliotheca*, xxv. 633.

⁵ Cf. Robert de Sorbon (MS. lat. 15971, f. 84): 'Quando clerici diu fuerunt Parisius et volunt recedere, ipsi corrigunt libros suos quia extra Parisius non invenirent exemplaria ad corrigendum.'

⁶ 'Dixit quidam de quibusdam fatuis scolariis sic: In nugis sunt subtiles, in necessariis tardi et ebetes, et ne nichil fecisse videantur cum repatriaverint, de pellibus vitulinis cum latis spaciis magna componunt volumina eaque pellibus rubeis et pulcris vestiunt, et sic cum sapienti sacculo sed cum insipienti animo ad parentes redeunt. Que est ista scientia quam fur subripere, mus rodere, tinea demoliri, aqua delere, ignis comburere potest?' MS. lat. 15971, f. 198; translated in *Histoire littéraire*, xxvi. 465.

⁷ Gautier de Château-Thierry, in Hauréau, vi. 210; translated in *Histoire littéraire*, xxvi. 392.

their servants¹ and the poor trudge home under the burning sun,² many idlers remain in Paris to their own and the city's harm.³ Mediaeval Paris, we should remember, was not only the incomparable 'parent of the sciences,' but also a place of good cheer and good fellowship and varied delights,⁴ a favourite resort not only of the studious but of country priests on a holiday;⁵ and it would not be strange if sometimes scholars prolonged their stay unduly and lamented their departure in phrases which are something more than rhetorical commonplace.⁶

We get glimpses, too, of the troop of hangers-on who always thrive in a university town, bedels and servants and furnishers and other 'emptiers of purses'⁷—like the vendors of fancy wafers (*mieules*), who make a handsome profit by visiting the students at meal-times and spreading their tempting wares on the table.⁸ The bedels are represented as imposing but ignorant persons, fond of good eating and drinking,⁹ whose multifarious duties put them in a position of considerable influence and gave them many opportunities for acquiring money.¹⁰ They levied

¹ 'Quidam scholaris nobilis et iuvenis multum Parisius morans tempore vacationis ivit in equis suis cum magistris et familia circumquaque Parisius spaciatur et declinans ad quandam abbaciam Cisterciensis ordinis.' Tours, MS. 468, f. 75.

² 'Quando ego veni semel de scolis in estate, pater meus vix cognovit me, ita fui denigratus in via propter solem.' Robert de Sorbon, MS. lat. 15971, f. 116.

³ Jean de Montlhéry, *Histoire littéraire*, xxvi. 437.

⁴ Cf. Hauréau, iv. 248; and the poem printed in Raynaud, *Motets français*, i. 277.

⁵ See chapter 26 of the synodal statutes of Eudes de Sully, bishop of Paris, in Migne, *P. L.*, ccxii. 66.

⁶ See for example the lament of a Picard scholar published by Langlois, *Revue internationale de l'enseignement*, xxiii. 561 ff.

⁷ John of Garland, *Dictionarius*, ed. Scheler, c. 69. Cc. 19, 30, 31, 34, and 35 mention various tradesmen who had frequent dealings with the Paris students. See also Chapter III, *infra*.

⁸ 'Consuetudo est in aliquibus terris, ut Parisius, quod *lo neuliers* qui facit nebulas veniet ad domum clericorum vel aliorum, et si potest intrare in hora comestionis veniet et proiciet nebulas per mensam et tunc dicit quod nesciret modum et consuetudines. Dicitur de isto homine, Quam largus est! sed certe antequam recedat ipse pro illo debili encenio reportabit quod valebit in quadruplo.' MS. lat. 15971, f. 155 v. Cf. John of Garland, *loc. cit.*, c. 30.

⁹ 'Tales . . . similes sunt bedellis qui semper sunt in scolis sine libris et nihil addiscunt nisi curias querere et bene comedere et bene bibere.' Guiard de Laon, MS. lat. 16471, f. 248 v.

¹⁰ On the duties of bedels see particularly the *Chartularium*, i, no. 369.

toll on the scholars for good seats in the lecture-halls,¹ exacted a goodly purse at inceptions,² and for a sufficient sum were ready to glorify ignorant masters.³ The well-to-do student might have a servant of his own, to carry his books to class,⁴ etc., but ordinarily one servant seems to have sufficed for a number of students of more modest needs.⁵ By all accounts these servants were a thieving lot, and Jacques de Vitry has a good story to tell of their skill in defrauding their masters. The servants, it appears, had a sort of chief or captain, who one day brought them together and began to question them as to their professional attainments. One after the other explained how he could make one, two, even three farthings on the penny, until the cleverest of all declared that he could pocket a penny for each farthing. "I buy," he said, "mustard from the dealer who furnishes me the vegetables, candles, and so on for my masters, and every time I get mustard I divide a farthing's worth into four portions and set each down as a farthing. Then, as I am a regular customer, the dealer throws in a fifth portion, which I also reckon at a farthing, and so I gain four farthings for one." ⁶

Other aspects of everyday life are illustrated in various stories of the students and their doings which the preachers have preserved. One clerk has a dog which he calls Rose and teaches to walk on its fore legs; another clerk steals it, names it Violet and teaches it to walk on its hind legs, so that it refuses to obey its former master when he claims it in the bishop's court.⁷ Certain students amuse themselves over their dice by putting one of the dice in a cat's paws; if the cat wins, they give it something to eat, if not, they kill it and sell its skin.⁸ In another *exemplum*

¹ Hauréau, vi. 125; Schönbach, *loc. cit.*, p. 152.

² *Chartularium*, *loc. cit.*

³ Hauréau, vi. 124.

⁴ *Ibid.*, p. 311; Pitra, *Analecta novissima*, ii. 363.

⁵ 'Mulier est quasi serviens pluribus scholaribus qui vix potest satisfacere, sed virgo cogitat que Deo sunt.' Guiard de Laon, MS. lat. 15959, f. 455 v. Cf. E. Berger, *Registres d'Innocent IV*, no. 2525; and the next note.

⁶ Jacques de Vitry, ed. Crane, p. 87, ed. Pitra, p. 456; Étienne de Bourbon, p. 372; Wright, *Latin Stories*, p. 113; translated in Lecoy de la Marche, *L'Esprit de nos aïeux*, pp. 187 f.

⁷ Auxerre, MS. 35, f. 96; printed by Delisle in *Histoire littéraire*, xxxi. 59, and by Welter in *Tabula exemplorum*, p. 14, no. 43.

⁸ Crane, *Jacques de Vitry*, p. 8; Welter, *Tabula exemplorum*, p. 53, no. 194.

the students were playing for a dinner, when one of them seized a neighbour's cat which frequented the house, and said: "He eats here and never pays his reckoning. He shall play." So they made the cat throw, and when he lost they tied to his neck a bill for a quart of wine and sent him home, threatening to take his skin if the owner did not pay. The owner sent back the cat with the money, but begged them not to force him to play again, as he could not count.¹ A student is drinking in his room with some friends, when he sees a thief under the bed. He asks them, "Did you give our brother there anything to drink?" Then they beat the thief.² A companion of Étienne de Bourbon is at vespers on Christmas eve, when a thief enters his room and steals his law-books. When the student comes to use the books after the holidays, he cannot find them and seeks help from a necromancer, who accuses an innocent relative of the student. Finally the real thief is forced to take sanctuary in a church tower and confesses to the theft, giving the residence of the Jew with whom he had pawned the books.³

One cannot read these tales without being reminded of that precious rogue of the *fabliau* who drank and diced away his clothing and his *clergie* throughout France: his A.B.C. and books of devotion, his grammars and 'authors'—Ovid the great, Lucan, Juvenal, Statius "and Virgil lost at dice at Abbeville,"—while Paris has his books of divinity, of arts, physic, and music:

Li tremeriaus m'a abatu,
Par ma folie ai tout perdu,

¹ 'Clerici quidam Parisius ludebant ad talos pro quadam cena, et quidam amittens [MS. admittens] accepit catum cuiusdam vicini eorum stantem iuxta eos qui frequentabat domum, et ait, Iste ludet vobiscum qui frequenter hic comedit et nunquam solvit symbolum; et ponens taxillum [MS. taxillo] intra iiiior pedes cati eum fecit proicere, et amisit. Et ponens cedula[m] ad collum eius scripsit amisisse quartam vini, quam nisi solveret pellem dimitteret, quod videns dominus eius ligavit peccuniam in collo cati, rogans ne compellerent eum ludere de cetero, *car il ne savoit compter sa chance.*' *Compilatio singularis exemplorum*, Tours, MS. 468, f. 80.

² 'Clerici scolares Parisius bibebant in camera unius sociorum, et vidit unum latronem asconditum sub lecto et ait, Dedistisne illi socio ad bibendum? quem egregie correxerunt.' *Ibid.*, f. 79 v.

³ Étienne de Bourbon, p. 317; translated in Lecoy de la Marche, *L'Esprit de nos aïeux*, p. 289.

Tout mon avoir et toz mes livres
 Grant pieça que j'en sui delivres.
 En duel ai torné mon revel,
 Quar je cuit que il n'ait chastel
 En France que je n'i alaisse,
 Et de mes livres n'i lessaïsse.

• • • • •
 Mes livres de Divinité
 Perdi à Paris la cité,
 Et cels d'art et cels de fisique,
 Et mes conduis et ma musique.¹

The principal student festivals mentioned in the sermons are Saint Nicholas's day, Christmas, and inceptions. The feast of Saint Nicholas, the patron saint of scholars, was one of the great days in the student calendar. There was a drama, in which clerks or maidens impersonated the saint and his miracles,² and then came feasting³ and games and dancing and the rest. "Some scholars swell the crowd of the Nicolaitanes [Rev., ii. 6], which men of authority always hate, and rise up at the voice of the cock, but in them the daughters of music are brought low."⁴ Christmas eve was likewise made an occasion for revelry, with dicing and drinking and wild Bacchic processions,⁵ so that some "committed more sins at Christmas time than during all the rest of the year."⁶ The inception celebra-

¹ See the poem in full, "Le departement des livres," in D. M. Méon, *Nouveau recueil de fabliaux et contes inédits* (Paris, 1823), i. 404-406; and the spirited English version of Helen Waddell, *The Wandering Scholars*, pp. 242-243.

² Hauréau, iv. 76.

³ See the story in Étienne de Bourbon, p. 51, of the barber who stole a pig for the clerks whom he was to entertain on this day.

⁴ 'Quidam enim scolares qui student vimencie ad turbam vadunt Nicolaitarum, quam viri catholici semper oderunt, et surgunt ad vocem volucris que gallus dicitur, sed obsurdescunt in eis filie carminis.' Prévostin, sermon 'in epiphania,' B.M., Add. MS. 18335, f. 13 v. See particularly Étienne de Besançon, in Hauréau, iv. 208. On cock-fights among scholars, cf. Hauréau, iv. 274; Lecoy de la Marche, *Chaire française*, p. 452, note. Another game, probably also among the students of the grammar schools, is alluded to in a Lenten sermon of a chancellor (Nicolas de Nonancourt?), MS. lat. 15952, f. 113 v: 'Sicut in ludo scolarium, gallice avoir, dire, et amentir.' Cf. also MS. lat. 15959, f. 191.

⁵ 'Sed ve illis scolaribus qui vigilias bacancium et furiosorum cum tirsis et facibus candelarum ei [Deo] exhibent bachalia festa celebrantes.' Guiard de Laon, sermon 'in vigilia Nativitatis,' MS. lat. 15959, f. 132.

⁶ Anonymous subprior, Hauréau, iii. 287-288. Cf. Eudes de Châteauroux, *ibid.*, vi. 209.

tions also fell under the displeasure of the moralists of the pulpit, for besides the inevitable banquet there were likely to be masquerades¹ and processions, with songs and garlands and tapers, and round dances (*choreae*)² in the streets and squares—the last-named form of amusement being in such disfavour with the church³ and with the university authorities that candidates were obliged to swear that they would permit no *choreae* about their houses nor suffer anything improper at their inception.⁴ Such infractions of strict discipline might even leave their echoes in the chroniclers, as when Guillaume le Breton tells us that the victory of Bouvines (1214) was celebrated by the scholars in dancing, singing, and feasting for eight days and as many nights.⁵ So in 1233 the Pope finds it necessary to legislate against canons and clerks of Paris who dance and gesticulate at Easter time in the cloisters of Orleans cathedral.⁶

The account of Paris student life which has been thus put together from the sermons is not of course a rounded picture. There is much truth in Mark Pattison's aphorism that "history cannot be written from manuscripts," and in presenting the material contained in a single class of sources many aspects of university life must necessarily be neglected. To the preachers the university and its members are primarily a theme for moralizing, and they emphasize what best points their moral.⁷ It is

¹ 'Sed heu ! modo non est disciplina Christi in clericis sed disciplina histri-
onum, quod patet in principiis magistrorum quando scolares diversificant se;
portant enim in capite signum crucis sed in corpore portant dyabolum portando
vestes histriionum.' John Peckham, Library of St. Mark's at Venice, Fondo
Antico, MS. 92, f. 205.

² 'Sicut Deus habet suam processionem in qua portantur cerei flores et crux
et vexilla, ita dyabolus suas habet processiones, scilicet choreas et circuitus per
vicos etiam de nocte. Fiunt enim choree cum cantilenis et floribus rosarum et
violarum in capellis capitis et in manibus. Item circuitus fiunt per vicos cum
cereis maxime a scolaribus in principiis et a laicis in nuptiis.' Gautier de
Château-Thierry, MS. lat. 15955, f. 98, col. 3. Pierre de Bar-sur-Aube, in
Hauréau, vi. 243. Cf. Jacques de Vitry, in Étienne de Bourbon, ed. Lecoy de la
Marche, p. 162, note.

³ See the stories of demons afflicting the dancers, in Étienne de Bourbon,
pp. 161, 226, 232, 397 ff.; and Hauréau, iv. 161. Cf. Welter, *Tabula exemplorum*,
p. 96.

⁴ *Chartularium*, i, nos. 202, 501.

⁵ *Philippis*, xii. 265-279 (ed. Delaborde, p. 358).

⁶ Auvray, *Registres de Grégoire IX* (Paris, 1896-), no. 1077.

⁷ Cf. the observations of Langlois in Lavissee, *Histoire de France*, iii, 2, p. 354.

not their business to tell of the orderly working of university institutions, the eager enthusiasm for learning, the wholesome routine of academic life; they give only what suits their purpose, and we must be thankful for that. Furthermore, much of what the sermons contain on university matters is interesting as showing the state of mind of their authors rather than as yielding specific information, and allowance must of course be made for the official position of some of the preachers as well as for the pulpit equation in general. What the preachers set out to say is usually of less historical importance than what they tell us unintentionally and incidentally. Still, when all deductions have been made, there remains a substantial residuum of fact which adds materially to our knowledge of academic conditions in the thirteenth century and to our sympathetic understanding of the human background of a great mediaeval university.

CHAPTER III

MANUALS FOR STUDENTS

THE mediaeval student, we have found in the preceding chapters, is an elusive person. He is numerous, he is noisy, a standard subject for the commonplaces of the class-room and the pulpit, but he meets us almost entirely in the mass, generic and impersonal. The individual student remains silent and inexpressive. He left behind him no "Diary of a Freshman," no compositions on the theme, "Who I am and why I came to Paris." Even Chaucer's incomparable clerk of Oxenford some would make only a type, 'souning in moral vertu' like the preachers. Types certainly the clerks are to their fellows, the authors of the Goliardic rhymes and the *fabliaux*. The next world, too, will know them in the mass, if we are to believe *Aucassin et Nicolette*—

Car en infer vont li bel clerç.

While the student literature of the Middle Ages is a literature of types, it is not on that account entirely barren for the historian of culture and social conditions, and one group of such sources of knowledge, the student manuals, may briefly claim our attention. Manuals of advice and information for students, it is true, may be found at all times, from the Graeco-Roman dialogues of the Pseudo-Dositheus to our current handbooks of deportment and of conversation in foreign tongues; nor should we forget that eighteenth-century Cambridge has left us Waterland's *Advice to a Young Student*,¹ containing edifying directions for a religious and sober life and days and nights of systematic study, or that nineteenth-century Oxford produced that amusing satire, *The Adventures of Mr. Verdant Green* as freshman and as undergraduate at 'Brazenface College.' The didacticism of such handbooks was, however, peculiarly welcome in the Middle Ages, when the schoolmaster ran at large through literature and even carved the seven liberal arts in stone. Mediaeval, too,

¹ C. Wordsworth, *Scholae Academicæ* (Cambridge, 1877), pp. 330-337.

was the literary characterization of the several classes of society, with its mirrors of princes, of monks, and of fools. It is very possibly an accident that we have no adequate 'mirror of students' by that title—and, after all, the *Mirror of Fools* of Nigel Wireker is chiefly concerned with students at Salerno and Paris, its hero an ass whose bray resists all academic remedies. In any case there are various manuals which hold up the mirror to the mediaeval student and reflect one or another phase of his life, and, without attempting to exhaust this class of materials, we may illustrate it by characteristic examples.

The most popular of mediaeval manuals, the *De disciplina scholarium* of the Pseudo-Boethius, doubtless owes much of its popularity to the honoured name which it bore, for Boethius, last of the ancients and first of the schoolmen, carried great authority throughout the Middle Ages, when the fame of his text-books easily spread to anything else which was ascribed to him. The extraordinary diffusion of this work in the later Middle Ages is attested by at least eighty-two manuscript copies and numerous early imprints. Nevertheless, no modern critic is misled by the author's attempt to dress the work up in a Boethian garb by means of allusions to "the inhuman king of the Goths" and the mythical student days of Boethius at Athens, or by the numerous examples of such imaginary ancients as Ganymede, son of the dictator Pyrrhus. Both internal and external evidence clearly place the treatise at Paris in the first half of the thirteenth century, though its author is unknown.¹

According to the author's advice, grammatical studies, which are begun at the age of seven, are to be followed by the Roman poets, and when the rudiments of such a training have been duly completed, the youth proceeds to climb, by careful attention to logical terminology and method, and a liberal use of the

¹ The text will be found most conveniently in Migne, *P. L.*, lxiv. 1223-38. The treatise is discussed by Jean Porcher in the *Positions des thèses de l'École des Chartes* for 1921, preliminary to a critical edition. He sets the date at 1230-40. Cf. J. T. Welter, *L'Exemplum* (Paris, 1927), pp. 188-189. Paul Lehmann, *Pseudo-antike Literatur des Mittelalters* (Berlin, 1927), pp. 27-28, 101, argues that the author's name was Conrad, as shown by the acrostic at the end of the treatise. Manacorda, who still accepts the Boethian authorship, cites a copy as early as 1247 (*Storia della scuola in Italia*, i, 2 (1914), p. 88).

text-books of Boethius, to "the knowledge of the five universals, which is the mistress of the sciences of the *trivium*, the power of the *quadrivium*, and the plenitude of the collateral sciences." If he would attain this end, the scholar should not be restless (*dyscolus*), as are many "in the city of Julius Caesar which was called Paris," wandering through the streets and squares with roving eye and unbridled tongue, visiting taverns and low resorts, and frequenting dances, public spectacles, and banquets. He should avoid luxury in all its forms and should limit himself to that moderate use of wine which gives keenness to the intellect. The wise scholar will choose a good chum and be on his guard against the wiles of scouts and laundresses. Before making final arrangements with a master, it is well to visit his lectures for three days. Once selected, the master should be treated with all respect, acts of violence, in particular, being avoided, to which the choleric temper is always prone, since "he who rises up against the impartor of knowledge is not worthy of knowledge." The poverty of masters and scholars comes in for discussion, in the course of which some general precepts are given for overcoming "the detestable close-fistedness of parents." The student who looks forward to becoming a master should begin to accumulate books of his own and not rely slavishly upon lectures. Oral expression and actual teaching should be practised and a wide acquaintance be cultivated, so that when the day of inception comes there may be a goodly concourse at the festivities and the lectures which follow. It is also well so to demean one's self as to secure the goodwill of those "by whose favour one is to be crowned." Before his promotion a new master ought also to be sure that he has sufficient means to support himself throughout the first year, for some have had to beg and others have found it necessary to hire students in order to have well filled class-rooms. The closing chapter is thus brought to consider "the venerable majesty of masters" and the principles which should govern their conduct, especially in the early years of their career when the judicious teacher must walk softly and tolerate the interruptions of those who come late to his lectures.

Much briefer, and quite without pretence to antiquity, is the manual *De regimine et modo studendi quem debent habere scolares* of Martino da Fano, a pupil of Azo at Bologna, and professor of law at Arezzo and Modena in 1255.¹ If, he begins, you are seeking how to study, a purpose for which I am glad to give you credit, you must first find the right sort of master, one who teaches the necessary things and answers questions readily and satisfactorily, suffering contradiction willingly and giving for his assertions sound reasons based on holy writ. Try to harmonize case and text, and to understand the text as fully as possible. Search out the reasons for the case, answering objections and seeking parallels. Commit carefully to memory in each instance one or two laws which seem most appropriate. Do not waste your time in saying these over by rote, but seek the meaning of the laws and be sure to go over them in your mind as you walk the streets or lie awake, saying, "To-day I have had so many laws, beginning so and so."

My children, favour equity and love justice; see the Code *De pactis*, law *Hac lege*.² Avoid vice, lest you appear unworthy in the eyes of other authors of the laws; see the Authentica *De triente et semisse*: *Sin autem*.³ Reverence chastity, for the emperor has decreed that it is ever to be revered; see the Authentica *Si qua mulier*, in the *Consultum Orfitianum*.⁴ For chastity alone is able to bring the souls of men into the presence of God; see the Authentica *De lenonibus*: *Sancimus*; ⁵ and we

¹ See the text in L. Frati, "L'epistola *De regimine et modo studendi* di Martino da Fano," in *Studi e memorie per la storia dell' Università di Bologna*, vi. 19-29 (1921). That Martino taught also at Naples and Milan has been brought out by E. M. Meyers, *Iuris interpretes saec. XIII* (Naples, 1924), pp. xxvi ff.

² Code, bk. v, tit. xiv, *De pactis conventis*, law 8: 'Hac lege decernimus . . . quoniam conditores legum aequitatis convenit esse fautores,' etc.

³ *Novels*, collatio iii, tit. v, novel 18, *De triente et semisse*, c. 5: 'Si autem confusa concupiscentia ita fiat, et alias superinducat priori concubinas . . . odibilis quidem nobis iste qui talis est, procul autem omnibus modis ab hac lege expellatur.'

⁴ Code, bk. vi, tit. lvii, *Ad senatus consultum Orfitianum*, law 5: 'Si qua illustris mulier . . . hanc legem ipsi pudicitiae, quam semper colendam censemus, merito dedicamus.'

⁵ *Novels*, coll. iii, tit. i, novel 14, *De lenonibus*, c. 1: 'Sancimus igitur omnes quidem secundum quod possint castitatem agere, quae etiam sola Deo cum fiducia possibilis est hominum animas praesentare.' Cf. Psalms, xxiv. 3, 4; Matthew, v. 8.

do not love our soul unless we live chastely; see the Authentica *Quomodo oportet episcopos: Haec de Deo*.¹ Practise clemency, for by it alone is won the likeness of God; see the Code *De nuptiis*, law *Imperialis*.² Avoid pride, for God resisteth the proud, and giveth his grace to the humble.³ Do not practise avarice, which is the root of all evil⁴ and is therefore to be smitten by the penalties of the law; see the Authentica *Ut iudices sine quoquo suffragio*, in collatio ii.⁵ If you do all these things, the light of learning will shine within you, for, as Solomon says, "into a malicious soul wisdom shall not enter, nor dwell in the body that is subject unto sin."⁶

A precise legal authority cited for every precept of ordinary morality, what could be more lawyer-like? We are very near that University of Bologna where an assault with a cutlass in the class-room was charged as a loss of time and money to the assembled scholars,⁷ and where the examples in the law lectures of Odofredus⁸ afford the best picture of the life of students in their idle hours, even to their giving false names to the police, the *Code* to the contrary notwithstanding.⁹

The *Morale scolarium* of John of Garland takes us back to the University of Paris and the thirteenth century; indeed, it has been definitely placed in the year 1241. Its author was a pedantic professor of grammar who imagined himself a poet and turned out verse on every subject from etymologies and supines to the miracles of the Virgin and the mysteries of the faith.¹⁰ Stilted

¹ *Novels*, coll. i, tit. vi, novel 6, *Quomodo oporteat episcopos*, secunda pars, *Haec de Deo*: '... ipsam castitatem eligentem, primum principium et fundamentum manifestum secundum divinas regulas et residuae virtutis constitutam.'

² *Code*, bk. v, tit. iv, *De nuptiis*, law 23, *Imperialis benevolentiae*: 'Nam ita credimus Dei benevolentiam et circa genus humanum nimiam clementiam quantum nostrae naturae possibile est imitari.'

³ 1 Peter, v. 5.

⁴ 1 Timothy, vi. 10.

⁵ *Novels*, coll. ii, tit. 2-3, novel 8, *Ut iudices sine quoquo suffragio fiant*.

⁶ Wisdom of Solomon, i. 4.

⁷ F. Cavazza, *Le scuole dell'antico studio bolognese* (Milan, 1896), no. 29.

⁸ On Odofredus see the memoir of G. Tamassia, in *Atti e memorie della R. deputazione di storia patria per le provincie di Romagna*, 3d series, xi. 183-225: xii. 1-83, 330-390, especially 71-83; cf. Zaccagnini, *Studio di Bologna*, pp. 78 f.

⁹ *Code*, bk. ix, tit. xxv, *De mutatione nominis*.

¹⁰ Hauréau, *Notice sur les oeuvres authentiques ou supposées de Jean de Garlande*, in *Notices et extraits des manuscrits*, xxvii, 2 (1879), pp. 1-86, has now been superseded by the elaborate introduction of L. J. Paetow to his edition of the *Morale Scolarium*, published in *Two Medieval Satires on the*

in their diction and generally obscure in style, the numerous works of John of Garland sometimes contain material of interest for the university life of his day, like the lines addressed by a Parisian student to the warden of the bishop's prison,¹ or the remarkable circular which sets forth the manifold advantages of the newly founded University of Toulouse,² in a way that would do credit to any modern educational promoter. John of Garland had some knowledge of student life at Paris, and we have a right to expect something from a treatise of six hundred and sixty-two lines which bears the title *Morale scolarium* and, along with the "insertion of the mystery of theology and the explanation of the cause of certain natural phenomena," promises to "eliminate the original rudeness of scholastic life by setting virtue over against vice and courtesy against boorishness in satirical reprehension." Nevertheless the poem is distinctly disappointing. Not only does this "new satire" deal wholly in generalities, "lest it may arouse wrath," but it is soon plain that the term satire is in fact used in the sense of a collection of miscellaneous poems. Instead of "a manual of *savoir-vivre* for the use of the ill bred and turbulent youth of the schools of Paris"³ we have a disconnected lot of Garland's occasional verse. The decline of the liberal arts and theology before the more popular lucrative sciences, the defects of the newer textbooks in grammar, the patience of the Mendicant Orders and the crown which awaits them, the vices and virtues of prelates, the generosity of parents and noble givers, the niggardliness of the rich in time of famine, the medicinal qualities of herbs, the praise of Rome, as well as the personal merits of St. Louis, the

University of Paris (Berkeley, 1927) and also separately. My own acquaintance with the *Morale scolarium* is based upon an examination of the Bruges, Cambridge, and Oxford manuscripts, but I have profited largely by the results of Paetow's researches.

¹ Printed in part by L. Rockinger in *Q. E.*, ix. 488.

² Johannes de Garlandia, *De triumphis ecclesiae libri octo*, ed. T. Wright (Roxburghe Club, 1856), pp. 96-98; Académie de Toulouse, *Mémoires*, 5th series, i. 209-211 (1857), accompanied by a French translation; *Chartularium Universitatis Parisiensis*, i, no. 72, pp. 129-131; M. Fournier, *Les statuts et privilèges des universités françaises*, i (1890), no. 504, pp. 439-440.

³ Hauréau, *loc. cit.*, p. 15.

bishop and the chancellor of Paris, and that example for honest imitation, John le Blund, "once the flower of Paris and now the flower of York"—when all these have been celebrated there is small room for counsel to students and still less for explaining the early and tantalizing allusions to the rectorship, determinations, and the 'hazing' of freshmen. The student should learn while he is at Paris, lest he be found wanting when he goes to Rome:

Parisius discas ne Rome forte deiscas.

"He should not be a fornicator, a robber, a murderer, a deceitful merchant, a champion at dice." The best models of deportment are the graven images of the churches. The lot of the poor scholar is not so hard: the life is honourable, and beets, beans, and peas, perhaps a quart of wine, make a good dinner for a tableful of scholars. If you give a feast, receive your guests with a glad countenance and in an honourable manner; give them clean seats and a fresh tablecloth. Carve the meat skilfully, and have a clean knife before you begin to hunt for the tender morsels. Don't drink when your mouth is full. After dinner wash your hands and refill the glasses, but first say grace. Learn to keep your mouth shut, and do not scratch yourself.

The two chapters of the *Morale scholarium* which deal with behaviour at table have given John of Garland, and his students, a place in the long list of mediaeval books on deportment.¹ Occupying a position somewhere between the moral *Distichs* of the Pseudo-Cato on the one hand and the "Perfect Butler" and the cookery books on the other, these manuals of manners are particularly concerned with table manners, and if their utility is not limited to clerks, their substance is already suggested in the clerkly handbooks of the earlier twelfth century, the *De institutione novitiorum* of Hugh of St. Victor and the *Disciplina clericalis* of Petrus Alphonsi. Well before John of Garland's time, this teaching was crystallized in a short poem

¹ The most considerable collection of such handbooks is that edited by F. J. Furnivall for the Early English Text Society under the title *Manners and Meals in Olden Time* (London, 1868); the best critical study is the article of S. Glixelli, "Les Contenances de Table," in *Romania*, xlvii. 1-40 (1921).

of twenty-three lines which serves as the starting-point of a long series of such treatises:¹

Quisquis es in mensa,	primo de paupere pensa:
Nam cum pascis eum,	pascis, amice, Deum.
Nescit homo plenus,	quam vitam ducat egenus.
Nemo cibum capiat,	donec benedictio fiat,
Nec capiat sedem,	nisi quam vult qui regit edem.
Donec sint posita	tibi fercula mandere vita,
Et mundi digiti	tibi sint unguesque politi.
In disco tacta	non sit bucella redacta.
Non tangas aures	nudis digitis neque nares.
Non mundes dentes	ferro acuto ad comedentes.
Sal non tangatur	esca quo vase locatur.
Si potes hec repeto	in mensa ructare caveto.
Esse scias vetitum	in mensa ponere cubitum.
Lege mandatur	ne parapsis ad osque ponatur.
Qui vult potare	debet prius os vacuare
Et sint illius	labia tersa prius;
Nec tacere possum,	ne dentibus laceret ossum.
Non dicas verbum	cuiquam quod ei sit acerbum,
Ne possit quis irasci	vel discordia nasci.
Vultu sis hilaris,	nullum tamen irridearis.
Si pauce loqueris,	gratior sodalibus eris.
Mensa submota,	manus ablue, postea pota.
Privetur mensa,	qui spreverit hec documenta.

Such concise counsel lends itself easily to expansion and adaptation both in Latin and the vernacular: by the beginning of the fourteenth century the Lombard Bonvesin da Riva has written a poem of two hundred and four lines, four for each of his "Fifty Rules of Courtesy of the Table," *De quinquaginta curialitatibus ad mensam*,² and by the sixteenth century the length of such poems runs into thousands of lines. They are found in practically all of the European vernaculars, in French, Provençal, and Italian, in German, Swedish, and Polish, as well as in English under such self-explanatory titles as "The Babees Book," "Lerne or be Lewde," "The A B C of Aristotle," "The Book of Curtisie," etc. All have a certain sameness, not to say

¹ F. Novati, *Carmina Medii Aevi* (Florence, 1883), pp. 47-50; Glixelli, *loc. cit.*, pp. 28-29.

² Best edited by A. I. Bekker, *Monatsberichte* of the Berlin Academy, 1851, pp. 85-90; Italian and English versions, Early English Text Society, 1868.

obviousness. "Wash your hands in the morning and, if there is time, your face; ¹ use your napkin and handkerchief; eat with three fingers only, and don't gorge; don't be boisterous or quarrelsome at table; don't stare at your neighbour or his plate; don't criticize the food; don't pick your teeth with your knife or wipe them on the cloth; don't butter your bread with your finger; don't whisper or go to sleep; don't spit on or over the table!" Here and there we find a further touch of the age: "Scrape bones with your knife but don't gnaw them; when you have done with them, put them in the bowl or on the floor!"

Behaviour at table covers but a small part of the territory occupied by the works of advice and counsel addressed to the mediaeval student, but it is often the most specific and informing part, for much of what was written on the whole duty of students is quite general and commonplace.* Thus Bonvesin da Riva, who is often interesting in his fifty rules of courtesy for the table, wrote a banal *Vita scholastica* ² "in which are contained the five keys of wisdom, namely, the fear of the Lord, respect for the master, assiduous reading, frequent questioning, and discipline of the memory." A better reflection of the age meets us at the end of the fifteenth century in the various *Statuta vel Praecepta scholarium* written in the form of couplets to be impressed on the memory of German youth.³ The beginning of wisdom was to remember God and obey the master, but the student had also to watch his behaviour in church and

¹ 'Ablue mane manus, faciem si tempus habebis.' Vatican, MS. Ottoboni lat. 3325, f. 16.

² Extracts printed by Bekker, Berlin Academy, *Monatsberichte*, 1851, pp. 450-456. Closely similar is a 'Liber scolastice discipline editus a magistro utili Parisiensi,' in the Vatican, MS. Ottoboni lat. 3325 (saec. xv), ff. 27-37, beginning

Utilis est rudibus presentis cura libelli.

In the manuscript this is preceded, ff. 1-24, by another 'Liber discipline scholastice,' also in verse, beginning

Hic rudium primo vivendi forma docetur.

The Wolfenbüttel catalogue lists under MS. 2444, f. 66 v, an 'Admonitio scholarium' and a 'De moribus beanorum atque studentium carmen.'

³ See the editions of Maurus Weingart, printed as a *Beilage zum Jahresberichte des humanistischen Gymnasiums Metten*, 1893-94, and of P. Bahlmann, "Schüler-Regeln aus dem Ende des 15. Jahrhunderts," in *Mitteilungen der Gesellschaft für deutsche Erziehungs- und Schulgeschichte*, iii. 129-145 (1893).

lift up his voice in the choir—compulsory attendance at church and singing in the choir being a regular feature of these schools—keep his books clean, and pay his school bills promptly. Face and hands should be washed in the morning, but the baths should not be visited without permission, nor should boys run on the ice or throw snowballs. Sunday was the day for play, but this could be only in the churchyard, where boys must be careful not to play with dice or break stones from the wall or throw anything over the church. And whether at play or at home, Latin should always be spoken.

Ne graventur nimium per studium scolares,
Ipsi solent ludere dies per solares.

Ludus his permittitur causa recreandi,
Et idioma sedulo latinum usitandi.

In nullo loco tu debes ludum exercere,
Quam in cimiterio, hic debes manere.

In hoc ludas, ut decet, omni abs clamore,
Nullum malum a tuo audiatur ore.

Non ludas pro re aliqua talos neque tractes,
Non rumpe muri lapides nec supra templum iactes.¹

John of Garland was the author of another work which helps us to understand the mediaeval student, namely, his *Dictionarius*,² in which, it is said, our modern word 'dictionary' first makes its appearance. This is a descriptive vocabulary, topically arranged and devoting a large amount of space to the

¹ Couplets 55-59.

² The *Dictionarius* has been edited four times. (1) Hercule Géraud, "Dictionnaire de Jean de Garlande," in his *Paris sous Philippe-le-Bel* (Paris, 1837), pp. 580-612: in the *Documents inédits sur l'histoire de France*. (2) Baron Kervyn de Lettenhove, in Société d'Émulation pour l'Étude de l'Histoire et des Antiquités de la Flandre, 2d series, viii. 160-176, 219-220 (1850). Incomplete. (3) Thomas Wright, "Dictionarius of John Garland," in *A Volume of Vocabularies* (London, 1857), pp. 120-138. (4) Auguste Scheler, in his essay "Trois traités de lexicographie latine du XII^e et du XIII^e siècle," *Jahrbuch für romanische und englische Literatur*, vi. 142-162, 287-321, 370-379 (1865). The best of these editions is that of Scheler, but there is much need of a critical edition which shall use all the manuscripts and glosses. For the manuscripts see Paetow's list, in his edition of the *Morale Scolarium* (Berkeley, 1927), pp. 128-129.

Much of the material which follows in the text has already been utilized in my *Rise of Universities* (New York, 1923), pp. 90-95, 97-102.

objects to be seen in the course of a walk through the streets of Paris. The reader is conducted from quarter to quarter and from trade to trade, from the bookstalls of the Parvis Notre-Dame and the fowl-market of the adjoining Rue Neuve to the money-changers' tables and goldsmiths' shops on the Grand-Pont and the bow-makers of the Porte Saint-Lazare, not omitting the classes of *ouvrières* whose acquaintance the student was most likely to make. Saddlers and glovers, clothiers and furriers, cordwainers, cobblers, and apothecaries, the clerk might have use for the wares of all of them, as well as the desk and candle and writing-materials which were the special tools of his calling; but his most frequent relations were with the purveyors of food and drink, whose agents plied their trade vigorously through the streets and lanes of the Latin quarter and worked off their poorer goods on scholars and their servants. There were the hawkers of wine, crying their samples of different qualities from the taverns, at four, six, eight, and twelve pence per measure; the fruit-sellers, deceiving clerks with lettuce and cress, cherries, pears, and green apples; and at night the vendors of light pastry, with their carefully covered baskets of wafers, waffles, and rissoles—a frequent stake at the games of dice among students, who had a custom of hanging from their windows the baskets gained by lucky throws of the six. The *pâtis-siers* had also more substantial wares suited to the clerical taste, tarts stuffed with cheese and eggs (good and bad) and well peppered pies of pork, chicken, and eels. To the *rôtisseurs* scholars' servants resorted, not only for the pigeons, geese, and other fowl roasted on their spits, but also for uncooked beef, pork, and mutton, seasoned with garlic and other strong sauces. Such fare, however, was not for the poorer students, whose slender purses limited them to tripe and various kinds of sausage, over which a quarrel might easily arise and "the butchers be themselves butchered by angry scholars."

From the student dictionary the way is short to the student dialogue, indeed both dialogue and descriptive vocabulary are closely associated in the Graeco-Roman tradition handed down to the Middle Ages. Thus grammar took on a catechetical form

in the *Ars minor* of Donatus and in the brief grammatical introductions of the later Middle Ages like *Es tu scholaris*, as well as in Greek compends like the Greek grammar of Roger Bacon and the *Erotemata* of Chrysoloras. There were manuals of conversation for travellers, both commercial and uncommercial, whether German merchants in Italy, Western voyagers to Constantinople,¹ or the Englishmen of many sorts who had occasion to learn French, be it the French of Paris or of Stratford-atte-Bowe.² Then the earlier Middle Ages had their own Latin dialogues such as the *Debate between Pippin and Alcuin*³ and the *Colloquium* of Aelfric.⁴ Nothing was more natural than to develop the vocabulary of a grammatical lesson by references to daily life, and in a didactic age it was easy to add something on religion or something on daily duty. Thus the grammatical *Es tu scholaris* started with *sum*, that 'root of all verbs' whose three letters represent the Trinity, but soon found occasion to ask concerning the six *opera scholarium*, namely, to get up in the morning, dress, brush one's hair, wash one's hands, say one's prayers, and go willingly to school.⁵ Such school dialogues are in no wise peculiar to the Middle Ages; they are a well known feature of the heritage of Graeco-Roman education⁶ and they were popular with the humanists of the sixteenth century, one of whom, Francisco Cervantes Salazar, carried the Latin type

¹ *Cabinet historique*, xxiii, 1 (1877), pp. 11-15.

² See Kathleen Lambley, *The Teaching and Cultivation of the French Language in England during Tudor and Stuart Times* (Manchester, 1920), pp. 3-57, 403-404. Cf. F. Callaey, "La vie belge au temps jadis d'après les Manuels de conversation," in Institut Historique Belge de Rome, *Bulletin*, v. 119-136 (1925).

³ In Migne, *P. L.*, ci. 975-980. For a still earlier example, see M. Förster, "Das älteste mittellateinische Gesprächbüchlein," in *Romanische Forschungen*, xxvii. 342-348 (1910).

⁴ Printed in Benjamin Thorpe's *Analecta Anglo-Saxonica*, new ed. (London, 1868), pp. 18-36.

⁵ J. J. Baebler, *Beiträge zu einer Geschichte der lateinischen Grammatik im Mittelalter* (Halle, 1885), pp. 189-195.

⁶ See particularly the dialogues of the Pseudo-Dositheus in G. Goetz, *Corpus Glossariorum Latinorum*, iii. 635-659; cf. C. H. Moore, "Latin Exercises from a Greek Schoolroom," in *Classical Philology*, xix. 317-328 (1924), and, for parallels in other languages, W. Schubart, "Ein lateinisch-griechisch-koptisches Gesprächsbuch," in *Klio*, xiii. 27-38 (1913), and H. F. J. Junker, "Ein mittel-persisches Schulgespräch," Heidelberg *S. B.*, 1912, no. 15.

across the seas to the earliest American university, founded in the city of Mexico in 1553.¹ Nor was there much in the dialogues which was characteristic of their time. If Salazar takes us on a promenade to Chapultepec, most of his predecessors keep well within the limits of the classroom, and the classroom is much the same in all ages. The greater part of the Graeco-Roman school dialogues might have been written yesterday, or even this morning, and so might a little manual composed in 1467 for the instruction of the future Emperor, Maximilian I, with its "Good morning, master, how are you?" and its hair-pulling and fisticuffs interspersed with biblical quotations.² Very modern, too, is much of the *Paedologia* of Peter Mosellanus, written by a professor of Greek at Leipzig in 1518 and now turned into colloquial English by Professor Seybolt.³ Still the colloquies of the humanists contain information which serves as a basis for reconstructing the academic conditions of the sixteenth century,⁴ and we may expect something from such materials respecting the preceding age.⁵ Let us take two examples, both from Germany in the fifteenth century, one describing university conditions, the other coming from a lower school.

The most interesting of such handbooks, the *Manuale Scholarium*, is entitled a "Manual of Scholars who propose to attend universities of students and to profit therein,"⁶ and while in

¹ L. Massebieau, *Les colloques scolaires du seizième siècle* (Paris, 1878), pp. 178-203.

² G. Zappert, "Über ein für den Jugendunterricht Kaiser Maximilian's I. abgefasstes lateinisches Gesprächbüchlein," in Vienna *S. B.*, xxviii. 193-280 (1858).

³ Urbana, Illinois, 1927: with a bibliography.

⁴ See particularly A. Bömer, "Lernen und Leben auf den Humanistenschulen im Spiegel der lateinischen Schülerdialoge," in *Neue Jahrbücher für Pädagogik*, ii. 129-141, 204-220 (1899); "Ein unbekanntes Schülergesprächsbuch Samuel Karochs von Lichtenberg," *ibid.*, iii. 465-476 (1900); and *Die lateinischen Schülergespräche der Humanisten* (Berlin, 1897-99, 2 parts); and compare the works of Massebieau and Seybolt cited above.

⁵ No one has made a list of such material for the Middle Ages. Indeed the mediaeval history of the prose dialogue still awaits a study of the type of H. Walther's *Das Streitgedicht in der lateinischen Litteratur des Mittelalters* (Munich, 1920). R. Hirzel, *Der Dialog* (Leipzig, 1895, 2 vols.), is worthless for the Middle Ages, while G. Niemann's dissertation, *Die Dialogliteratur der Reformationszeit* (Leipzig, 1905), treats only of the period named in its title.

⁶ Most conveniently accessible in Friedrich Zarncke, *Die deutschen Universi-*

its most common form it is designed for the students of Heidelberg about the year 1480, it could be adapted with slight changes to any of the German universities. "Rollo at Heidelberg," we might call it. Its eighteen chapters conduct the student from his matriculation to his degree, and inform him by the way on many subjects quite unnecessary for either. When the young man arrives he registers from Ulm; his parents are in moderate circumstances; he has come to study. He is then duly 'hazed' after the German fashion, which treats the candidate (*beanus*) as a foul beast with horns and tusks which must be removed by officious fellow-students, who taunt him as 'mother's darling' and subject him to much rough language and violent horse-play; they also hear his confession of sin and fix as the penance a good dinner for the crowd, but at the end come up and wish him good luck. He begins his studies by attending three lectures a day on the works of Aristotle, and learns to champion nominalism against realism and the comedies of Terence against the law, and to discuss the advantages of various universities and the price of food and the quality of the beer in university towns. Thus:

Camillus. Where do you come from?

Bartoldus. From Erfurt.

Cam. What news do you bring?

Bar. Nothing at all, absolutely nothing.

Cam. I supposed that Erfurt was the harbour of all news.

Bar. That fact has escaped me; in fact, I must admit that I don't care to hear gossip.

Cam. Where are you going?

Bar. To Heidelberg.

Cam. What are you going to do there?

Bar. I've often been told that the instruction in the liberal arts is very good there, so I wanted to try out the usage of the university. As good luck would have it, I've met you. Tell me, what are the customs of your school?

Cam. I'll tell you. But first answer my question.

täten im Mittelalter (Leipzig, 1857), pp. 1-48. See the translation into colloquial English by R. F. Seybolt, *The Manuale Scholarium* (Cambridge, Mass., 1921); and cf. W. Fabricius, "Die ältesten gedruckten Quellen zur Geschichte des deutschen Studententums: I. Das sogenannte 'Manuale Sclolarium,'" in *Zeitschrift für Bücherfreunde*, i. 178-182 (1897).

Bar. What is that?

Cam. Tell me the manner of your university.

Bar. I'll do so gladly. First, they revere the method of the nominalists; if there are any realists, they're not admitted, and they're not permitted to lecture or to hold recitations.

Cam. Why?

Bar. On account of quarrels; for disputes are stirred up, from which enmity arises and hatred is born. But to avoid disputes of this sort they think best to have one method only.

Cam. That isn't the right way; for if there were more than one method, the students would become keener, and more versed, and more ready in argument.

Bar. That's very true.

Cam. But you asked me to explain the usage of our university to you. It's very different from yours, from what I hear. First, we don't shut out the nominalists; if we can get any good out of them, we're perfectly willing to do so. Second, masters of each method are admitted. Each is permitted to state what he may have in his demonstrations. Indeed, among us there are some who follow Albert, some who esteem Thomas, some who admire the most subtle John the Scot, and follow in his footsteps; and the teaching of all these doctors contributes to the exercise of the understanding.

Bar. To tell you the truth, you've now aroused in me a great desire for study. Nothing is sweeter to me, nothing more enjoyable, than to hear what most excellent men think. Worthy patron, be kind enough to direct me to a lodging house in which study is held in great respect.¹

Then we find our student and his room-mate quarrelling over a mislaid book; rushing at the first sound of the bell to dinner, where they debate the relative merits of veal and beans; or walking in the fields beyond the Neckar, perhaps by the famous Philosophers' Road which has charmed so many generations of Heidelberg youth, and exchanging Latin remarks on the birds and fish as they go. Then there are shorter dialogues: the scholar is reported for breaking the statutes; he has bad news from home, and no remittance; he borrows money from his room-mate; he falls in love and recovers; he goes to hear a fat Italian friar preach or to see the jugglers and the jousting in the market-place; he knows the dog-days are coming—he can feel them in his head! Finally our student is told by his parents that it is high time for him to take his degree and come home. At this

¹ Chapter vii (Seybolt's translation).

he is much disturbed: he has gone to few lectures, and he will have to swear that he has attended regularly; he has not worked much and has incurred the enmity of many professors; his master discourages him from trying the examination; he fears the disgrace of failure. But his interlocutor reassures him by a pertinent quotation from Ovid and suggests that a judicious distribution of gifts may do much—a few florins will win him the favour of all. Let him write home for more money and give a great feast for his professors; if he treats them well, he need not fear the outcome. This advice throws a curious light upon the educational standards of the time; it appears to have been followed, for the manual closes with a set of forms inviting the masters to the banquet and the free bath by which it was preceded:¹

Reverend master, may we ask Your Reverence not to refuse to accept the entertainment of Master N.'s collation, and that you be mindful of us in the disputation, and we shall always be most studious to please you.

Reverend master, does it please Your Grace to enter the bath? For I am going to pay the fee for you. I pray, moreover, that you accept it with good will. Indeed, if I could show you greater reverence or honour, I would do so most eagerly.

More systematic is a school manual of the fifteenth century from the neighbourhood of Saxony, preserved in a manuscript of the Bibliothèque Nationale at Paris.² "Since by reason of imbecility youths cannot advance to a knowledge of the Latin tongue by theory alone," the author has for their assistance prepared a set of forms which contain the expressions most frequently employed by clerks.³ Beginning with the courtesies of school life (for obedience and due reverence for the master are the beginning of wisdom), the boy learns how to greet his master and to take leave, how to excuse himself for wrongdoing, how to invite the master to dine or sup with his parents

¹ Chapter xviii (Seybolt).

² MS. lat. n.a. 619, ff. 28-34 v.

³ 'Latinum ydeoma duplici via potest cognosci scilicet arte et usu. Sed quia ratione imbecillitatis iuvenes per viam artis ad studium latini sermonis nequeant perficisci, ideo ad subveniendum eorum tenuitati dignum duxi [MS. tenacitati dignum dixi] tabulas conscribere in quibus per ordinem quidam ponuntur sermones qui a clericis sepius proferuntur' (f. 28).

—there are half a dozen forms for this! ¹ He is also taught how to give proper answers, both jocose and serious, to those who seek to test his knowledge, “that he may not appear an idiot in the sight of his parents.” ² “If the master asks, ‘Where have you been so long?’” he must be ready, not only to plead the inevitable headache or failure to hear the bell, but also to express the causes of delay well known to any village boy. He was busy at home; he was sent on an errand; he had to look after the house or feed the cattle or water the horse; he took a bath; he was detained by a wedding, by picking grapes, by dyeing, or making out accounts, or—for these were German boys—by helping with the brew, fetching beer, or serving drink to guests.³

In school after the “spiritual refection” of the morning singing-lesson ⁴ comes refection of the body, which is placed after study hours because “the imaginative virtue is generally impeded in those who are freshly sated.” ⁵ In their talk at table or on the playground “clerks are apt to fall from the Latin idiom into the mother tongue,” and for him who speaks German rather than the language of a rational being the high discretion of the master has invented a dunce’s symbol called

¹ ‘Domine reverende, parentes mei diligenter petunt vos ut cras cum illis prandium faciatis. . . . Pater commisit mihi vos rogare ut sitis hoc vespere secum in collatione’ (f. 28).

² F. 28 v.

³ ‘Fui in domo occupatus. Pater misit me monitum. Ego propinavi hospitibus. Ego tuli cervisiam. Ego noviter commedi. Dolorem capitis passus eram. Ex iussu patris mei adaquavi equum. Ego signavi debita. Balneatus eram. *Vel sic:* Ego obaudi pulsum. Ego putabam quod fuisset 5^a pro certe surrexi hora 4^a. Ego dedi animalibus pascua. Ego fui in mercatorio. Ego custodivi in domo. Ego eram cum parentibus ad nupcias. Ego portavi brasium. Ego iuvi braxare. Ego uvas collegi. Ego laboravi in sandice’ (f. 29).

⁴ ‘Magister reverende, est hodie cantandum vel legendum? Est ordo versuum faciendus? Quot pueri sunt ad utrum [MS. v^m] versum ordinandi? Sunt versiculi cum alleluia dicendi? Quis erit versiculus? Sub qua nota Benedicamus cantabitur? . . .’ (f. 29 v).

⁵ ‘Et quia secundum consuetudinem scholarium expedi(a)tis lectionibus scholares solent prandere ut post spiritualement refectionem sequatur corporalis, et rationale est quod prius student antequam commedent, quia virtus ymaginativa plerumque impeditur in hominibus noviter saturatis, sic itaque dum commedunt colloquuntur: Care socie, impertire mihi prandium, *vel* Da mihi porcionem prandii. . . . Vis habere caseum? Non commedo illum; ceteris bene vescor lacticiniis’ (ff. 29 v, 30).

an ass, which the holder tries hard to pass on to another. "Wer wel ein Griffel kouffe[n]?" "Ich wel ein Griffel kouffen." "Tecum sit asinus." "Ach, quam falsus es tu!" Sometimes the victim offers to meet his deceiver after vespers, with the usual schoolboy brag on both sides until it is silenced by the arrival of the master.¹ As it is forbidden to come to blows in school, the boys are taught to work off their enmities and formulate their complaints in Latin dialogue. "You were outside the town after dark. You played with laymen Sunday. You went swimming Monday. You ran about the market on Tuesday. You stayed away from matins. You slept through mass. You missed vespers. You beat some of the boys and stirred up trouble. You lost my pen and carried off a book." "Reverend master, he has soiled my book, he shouts after me wherever I go, he calls me names, he dragged me by the legs, he never leaves me in peace."²

Besides the formal disputations, the scholars discuss such current events as a street fight, a cousin's wedding, the coming war with the duke of Saxony, or the means of getting to Erfurt, whither one of them is going, via Halle, when he is sixteen, to

¹ 'Frequenter in huiusmodi confabulacione et in ceteris clerici de latino ydeomate incidunt in maternum ydeoma. Ideo discrecio magistralis convenientem modum excogitat quod illi vendetur [*sic*] azinus qui velud azinus teutonicum respondet nec velud homo rationalis fatur latinum. Vendens igitur azinum sic loquens insidiatur: Wer wel ein griffel kouffe[n]? Ich wel ein griffel kouffen. At ille, Habeas tibi azinum, *vel* Tecum sit asinus. Ach quam falsus es tu! Quare non es circumspectus? Ego non adverto quia dictis vespers ego tecum disputabo. Quid ad me? estimas quod timeam te? Tu magnus es artifex, neminem curas. Utique non timeo te. . . Qui te timeat fugiat. Ecce, quantum gloriatur iste dominus. . . Sitis compositi, magister venit' (ff. 30, 30 v, 31).

² 'Post diversa negocia pertracta accidit inter scolares discordia et dum unus laudat aliquem tunc alter vituperat et dum inimicicias verberibus ostendere non possunt tunc verbis odium ostendunt alter alteri dicens:

'Ego accusabo te quod visus es de sero foris civitatem. In die solis lusisti cum laycis. In die lune in aquis balneatus es. In die martis discurrabas in foro. Matutinis non interfuisti. Pueros verberasti. Contra statuta magistri murmurasti. Ad discordiam plures concitasti. Opprobriosa verba contulisti. Insanias exercuisti. Libros cantandi maculasti. Vesperas neglexisti. Missam obdormivisti. Michi stilum perdidisti. Libro[rum] unum subtraxisti.

'Ex hiis et consimilibus verba accusationis formare possunt dum ad magistros in necessariis illatis currunt sic dicentes:

'Reverende magister, ille me semper vituperat. Me transeunte undique

study at the university.¹ The great ordeal of the day was the master's quiz on Latin grammar, when every one was questioned in turn (*auditio circuli*). The pupils rehearse their declensions and conjugations and the idle begin to tremble as the hour draws near. There is some hope that the master may not come. "He has guests." "But they will leave in time." "He may go to the baths." "But it is not yet a whole week since he was there last." "There he comes. Name the wolf, and he forthwith appears." Finally the shaky scholar falls back on his only hope, a place near one who promises to prompt him.²

"When the recitation is over and the lesson given out, rejoicing begins among the youth at the approach of the hour for going home," and they indulge in much idle talk "which is here omitted, lest it furnish the means of offending." Joy is, however, tempered by the contest which precedes dismissal, "a serious and furious disputation for the *palmiterium*," until one secures the prize and another has the *asinus* to keep till next day.³

After school the boys go to play in the churchyard, the sports mentioned being hoops, marbles (apparently), ball (during

inclamat. Cognomina michi donat. Verbis opprobriavit me. Textum meum maculavit. Cruribus me traxavit. Nunquam in pace me permittit' (f. 32 v).

¹ 'Postquam ero sedecim annorum mittar ad studium. Ego peragam tecum. Unde [?] recipias expensas? Deus providebit. Quo ibimus primo? Ad Erfordiam. Si haberemus currum! In Hall[is] sufficiencia curruum reperitur. . . .' (f. 32).

² 'Clerici insuper specialibus sermonibus sunt usi ante tempus audicionis circuli. Tunc enim incipiunt pavere et tedere discoli sed gaudent studiosi. Sic mutuo colloquantur:

'Estne cito hora audiendi? Ymmo immediate sed adhuc est modicum intervallum; estimo quod non audiemur. Utinam vellet Deus! Quare deberet obmitti? Magister est occupatus. Ut quomodo? Ipse hospites habet. Quid ergo? subito recedunt et possibile est quod tunc protinus audiet. Forte intrabit balneum. Nuperrime est balneatus. Quamdiu est hoc? Nondum plene ebdomada est transacta. . . . Nonne vides ipsum venientem? Dum lupus nominatur sine mora presentatur. Bene dic mihi ignota in circulo. Si possis circa me locum obtinere' (f. 33).

³ 'Audicione facta lectioneque accepta leticia crescit in iuvenibus quia appropinquat hora ut vadant ad domum, illo quoque tempore multos truffaticos tractant sermones de quibus sileo ne detur eis peccandi occasio. Et quamvis ex spe dimissionis crescit leticia, tamen aliquialiter miscetur cum tristicia vel mesticia quia tunc pro palmiterio incipit certacio et seriosa et furiosa disputatione. Venit enim alter ad alterum: Disputa tu mecum. Libenter . . .' (f. 33 v).

Lent), and a kind of counting game. The author distinguishes hoops for throwing and for rolling, spheres of wood and of stone, but the subject soon becomes too deep for his Latin, and in the midst of this topic our text comes to an abrupt conclusion.¹

¹ 'Recreatur puerorum animus in cymiterio post dimissionem per ludos diversos. Idcirco in cymiterio exercitio ne [MS. non] careant, iuxta hunc casum sermones faciunt illo modo ut sic :

'Nemo de cymiterio currat. Nullus faciat. Iuvenes, quibus placet ludere? Per quem modum? Cum cottis. Solvam? Accomodabitur. Ad libitum tuum. Quot optas? Sto contentus. Capias solidum. Quot dabis pro nummo? Quis cupit emere? Adde duos. . . .' (f. 34).

'Preterea ludorum scolarium alii sunt trocorum alii globorum. Primum Cathonis concessit auctoritas cum dicit, Troco lude [*Distichs*, ed. W. J. Chase (Madison, 1922), p. 14]. Item docet temporis oportunitas, Trocorum ludus singula tempora occupat, pila vero quadragesimale, globorum autem ludus estivale, cui ludo annectitur ludus nucleorum. Trocorum ergo [alii] iaciles, alii vertiles. Sic fingere eis nomina necesse est quorum sic formandi sunt sermones. . . . Globorum alii lignei alii lapidei et cum utrisque ludunt scholares sic tempus deducentes. Circa ludum ligneorum speciales habent terminos teutonicos, velud sunt *velle reyne* etc. Hii non faciliter possunt exprimi sed circumlocutione proferuntur sub hac forma' (f. 34 v).

CHAPTER IV

THE SPREAD OF IDEAS IN THE MIDDLE AGES¹

IN the general history of ideas an important chapter deals with the means by which ideas are carried from individual to individual and from group to group. The story is a long one, with the club and the sword and similar instruments of sweet reasonableness at one end, and the headline, the aeroplane, and the radio at the other, while slower and possibly more efficacious agencies lie between. The Middle Ages present a special phase of the subject, combining as they did static rural conditions and primitive modes of travel with a social structure which required a certain amount of communication between widely separated units of the same type, so that extreme localism in some respects coexisted with a common European civilization in others. Certain historians have accordingly stressed the regional, others the general, elements in mediaeval culture, with a tendency toward a vague and mystical *Volksgeist* on the one hand or an equally vague and mystical *Zeitgeist* on the other. A more realistic view of mediaeval society may be reached by considering briefly the more common ways by which ideas passed, and noting some matters toward which investigation may profitably be directed. This essay seeks to suggest and illustrate by examples to which any one can easily add, rather than to present the results of a specific piece of research.¹ The word 'idea' is used, for lack of a better, to include not only abstract conceptions but new information of every sort, new themes and modes in literature, and new types in art.

In the Roman empire the ease of intercourse and communication was proverbial. What with the system of roads and bridges, the constant passing of troops, officials, and messengers, the

¹ Reprinted from *Speculum*, i. 19-30 (1926), having been read before the American Academy of Arts and Sciences, 12 November 1924, and before the American Historical Association, 30 December 1924. Some aspects of the topic have been further developed in my *Renaissance of the Twelfth Century* (Cambridge, Mass., 1927), ch. 2.

free interchange of wares between distant provinces, and the habit of long journeys by sea and land, the amount of travel has been declared greater than was to be found again before the nineteenth century.¹ For specific illustrations it is enough to recall the voyages of Paul of Tarsus; the vogue of Antioch, Athens, and Alexandria for Western students; the Phrygian merchant who made seventy-two journeys to Rome; and the man of Cadiz who travelled all the way to Rome and back merely to set his eyes on the historian Livy. The result was a singularly uniform and cosmopolitan civilization throughout the Roman world, from which the local and provincial spirit was strikingly absent and through which ideas passed with singular ease and swiftness, as exemplified in the 'ubiquitous professor' and in the spread of Christianity and other forms of Oriental religion.

This unity of life and ideas came to an end in the West with the Germanic invasions, and in the region of the Mediterranean with the Saracen conquests.² Roads fell into disrepair, commerce dried up, education declined, and book-learning almost disappeared. Localism was writ large across the Europe of the early Middle Ages, the localism at first of the tribe and the estate, later shaping itself into those feudal and manorial units upon which mediaeval society rested. Both politically and socially these units were very nearly independent, and the exchange of products and ideas was reduced to a minimum. Under these conditions culture became regional, at the widest, and we witness the slow formation of those provincialisms which still survive so tenaciously—types of cottage roofs and schools of ecclesiastical architecture, local products of the soil and local cuisines, local costume and local custom, local saints and local beliefs, local dialects and folk-lore and literary traditions—all

¹ L. Friedländer, *Roman Life and Manners under the Early Empire* (New York, 1908-13), i. 322. Cf. M. P. Charlesworth, *Trade Routes and Commerce of the Roman Empire* (Cambridge, 1924).

² On the relation of the Saracen conquests to commerce and communication, cf. the recent papers of H. Pirenne, "Mahomet et Charlemagne," in *Revue belge de philologie et d'histoire*, i. 77-86 (1922); "Un contraste économique: Mérovingiens et Carolingiens," *ibid.*, ii. 223-235 (1923); "Le commerce du papyrus dans la Gaule Mérovingienne," in *Académie des Inscriptions et Belles-Lettres, Comptes rendus*, 1928, pp. 178-191.

that mass of deep-rooted and full-bodied localisms which give to European life its variety and flavour and sense of age-long contact with the soil. Naturally ideas and information spread only slowly, and against great resistance, from one district to another; custom determined everything, and the type altered little from age to age. If this were all of mediaeval life, our theme were soon exhausted.

As a matter of fact, the spread of ideas in the Middle Ages is only in part a history of slow diffusion through the resisting medium of local habit and custom. It is mainly concerned with the relations of scattered centres of another sort, stations of high tension, if you like, communicating with other stations of the same type with comparatively little reference to distance or the nature of the intervening space. Such centres, representing different social strata, consisted chiefly of monasteries and cathedrals, courts, towns, and universities.

That the church was the chief source of unity for mediaeval society is a commonplace which is not open to dispute. When, however, we pass beyond the fundamentals of law and creed and ritual to the cultural side of the church's influence, we must make certain distinctions. The church drew men to Rome, but only in small numbers before the twelfth century, when the growth of the canon law and the centralization of the papal monarchy began to compel or at least encourage the presence of ever-increasing numbers of litigants and petitioners and other visitors *ad limina Sanctorum Apostolorum*. The church sent men on distant pilgrimages, but the pilgrims moved to specific places by definite routes whose significance we are only beginning to appreciate. The church fostered ecclesiastical architecture, but the types of building and decoration show a strange combination of regional influences and of imitation of far distant types through the intermediary of pilgrims and travelling prelates and architects, like that Villard de Honne-court whose surviving sketch-book shows him at Chartres and Lausanne and in Hungary as well as in his native Picardy. The history of ecclesiastical travel has much to teach us.

In the earlier Middle Ages the chief centres of intellectual

life were the various monasteries, set like scattered islands of knowledge in a sea of ignorance and barbarism, and the spread of knowledge was chiefly from one such centre to another. Much of this intercourse was naturally local, but much of it also was at long distance, by routes which we do not yet fully understand. Thus the annals of a group of Anglo-Norman establishments were based on annals which came from the Rhine by way of Burgundy and went back ultimately to the Easter-tables of Bede. A detailed description of the opening of Charlemagne's tomb at Aachen by Otto III turns up unexpectedly at Novalesse on the Mount Cenis pass.¹ A noteworthy report of King John's condemnation by the court of Philip Augustus appears in the annals of Margam, on the Welsh border.² Bury St. Edmunds in 1181-82 has a six-months' visit from the Norwegian archbishop Eystein.³ Matthew Paris at St. Albans had detailed information respecting the Tartars.⁴ The monks of Mont-Saint-Michel in Normandy were in close touch with those of Monte Santangelo on the east coast of Italy, where St. Michael was also the patron. Saint-Évroult in Normandy sent out daughter monasteries to Mileto, Venosa, and S. Eufemia in Italy, where its local ritual, the *cantus Uticensis*, was sung long afterward.⁵ The miracles of St. Nicholas, so important in the history of the religious drama, passed from the East via St. Nicholas of Bari as far as Bec and Hildesheim, not only to churches dedicated to this patron saint but also to others along the road like S. Salvatore at Lucca,⁶ as attested by its portal. The monastic *confraternitates* often joined widely separated communities, and the mortuary *rotuli* travelled long distances. One of the best illustrations of the fallacy of a merely regional view is Traube's study of the so-called 'national hands,' in which he demonstrated

¹ Th. Lindner, *Die Fabel von der Bestattung Karls des Grossen* (Aachen, 1893).

² F. M. Powicke, *The Loss of Normandy* (Manchester, 1913), pp. 463 ff.

³ H. G. Leach, *Angevin Britain and Scandinavia* (Cambridge, Mass., 1921), pp. 89-95.

⁴ *Chronica Maiora*, *passim*.

⁵ Ordericus Vitalis (ed. A. Le Prévost, Paris, 1838-55), ii. 89-91.

⁶ A. K. Porter, *Romanesque Sculpture* (Boston, 1923), nos. 224, 225; and, in general, G. R. Coffman, *A New Theory concerning the Origin of the Miracle Play* (Menasha, Wis., 1914), pp. 45-66; and in *Manly Anniversary Studies* (Chicago, 1923), pp. 269-275.

that there was no such thing as a Merovingian or a Lombard book-hand, but only the handwriting of the several monastic *scriptoria*, with occasional monks passing from one to another, so that the manuscripts of Corbie in Gaul show closer resemblances to manuscripts of Northern Italy than to those of Frankish neighbours.¹

As time went on, the possibilities of monastic intercourse were enlarged and systematized by the formation of the great organizations of Cluni and Cîteaux with their chapters and visitations and systematic colonization; and the share of these orders in the spread of French culture to Germany and Spain has long been recognized by historians of art. In the Franciscan and Dominican orders the local element almost disappears in a European organization which emphasizes uniformity and migration. At the hands of the friars historiography becomes general rather than local, while works of theology and erudition, as well as collections of *exempla*, circulate freely among their new centres of study and teaching. Even the suppression of heresy by the Dominican Inquisition tends indirectly to favour the wide and rapid circulation of the standard manuals of doctrine and procedure.

The importance of the cathedral as an intellectual centre dates from the ninth century, when the maintenance of cathedral schools and the adoption of the common life of the canons were prescribed by the Carolingian legislation. In spite of their growing divergence of interests, bishop and chapter constituted for most purposes a single intellectual group, having affinities on the one hand with monastic communities and on the other with the feudal courts, while the ecclesiastical organization insured a certain amount of communication within each province. The intellectual influence of the cathedral centres reached its height in the revival of the twelfth century, as seen in the spread of translations from the Arabic under Archbishop Raymond of

¹ See particularly his "Perrona Scottorum," *Munich S. B.*, 1900, pp. 472-476: and in his *Vorlesungen und Abhandlungen* (Munich, 1909-20), iii. 97-99. See now Ph. Lauer, "Recherches sur l'écriture de Corbie dite lombardique," in *Bulletin philologique et historique* of the Comité des travaux historiques et scientifiques, année 1924 (Paris, 1926), pp. 59-68.

Toledo, in the continental relations of Canterbury under Archbishops Theobald and Thomas Becket, and in the resort from all parts of Europe to the cathedral schools of Northern France.

The court, feudal, episcopal, or royal, is important primarily for the circulation of the courtly type of literature, through the intermediary of jongleurs, trouvères, and Goliardi, those 'jongleurs of the clerical world.' Such composers and colporteurs required patrons, and only the richer courts could offer them permanent support, so that they were perforce migratory, passing from court to court or moving about with a migratory patron, like the 'Archpoet' with the archbishop of Cologne in the wake of Frederick Barbarossa. In this way the subject-matter of French poetry spread over Western Europe; original French and Provençal lyrics acquired currency in Italy; and French became the courtly language of a large part of Latin Christendom. Even the larger courts shared their men of letters: Peter of Blois was the 'intimate friend' of the rulers of England and of Sicily;¹ the poet Henry of Avranches, who has a pension and a livery of wine from Henry III of England, is also found writing Latin verse for Frederick II.² And when whole courts wandered, as on the Crusades or the *Römerzüge* of the German emperors, the possibilities are obvious. Nor was the interchange of courts limited to belles-lettres. Otto III receives his Byzantine ideas of government through his mother; Manuel Comnenus sends Ptolemy's *Almagest* as a present to the king of Sicily; while Frederick II is in scientific correspondence with various Saracen sovereigns. King Roger draws to Palermo men of learning from every land, and one of his officials, Master Thomas Brown, is afterward found sitting at the Exchequer of Henry II.³

¹ Stubbs, introduction to Roger of Hoveden, ii, p. xcii.

² *Forschungen zur deutschen Geschichte*, xviii. 482-492 (1878); *Monatschrift für die Geschichte West-Deutschlands*, iv. 336-344 (1878); Josiah C. Russell, "Master Henry of Avranches as an International Poet," in *Speculum*, iii. 34-63 (1928).

³ See *Mediaeval Science*, chs. 9, 12; and, for Anglo-Sicilian relations, my articles in *E. H. R.*, xxvi. 433-447, 641-665 (1911). On the foreign relations of the court of Henry II, see Stubbs, *Seventeen Lectures on Mediaeval and Modern History*, chs. 6 and 7; and my paper in the *Essays in Medieval History presented to Thomas Frederick Tout* (Manchester, 1925), pp. 71-77.

Henry's Assize of Arms was, we are told, one of the administrative expedients imitated by Philip Augustus.¹ French royal institutions were used as models in creating the central government of the Burgundian state, while this in turn served as a type for the Hapsburgs when Maximilian brought skilled officials from the Netherlands to Vienna. In a still different field lies the well known fact of the spread of Wiclif's doctrines to Bohemia by the marriage of Richard II. Historians ought frequently to heed, not only Lavissee's reminder that kings, like other people, inherit from their mothers, but also the fact that kings and their courts are influenced by their wives and their wives' relatives and followers.

The towns of the Middle Ages were, like the monasteries, islands, islands, in this instance, of political and social freedom in a sea of rural bondage. While they grew in part by drawing to their free air serfs from the adjacent country, their relations were chiefly with other towns. Here again, as in the early spread of Christianity from city to city, geographical proximity was not the only occasion for contact. If the urban constitution of Soissons was imitated chiefly by its immediate neighbours and in Burgundy, the *Établissements* of Rouen spread through the Plantagenet dominions to the Spanish frontier, while the customs of the Norman *bourg* of Breteuil have been traced as far as the Welsh border and Ireland.² The intercourse of towns was primarily commercial, and it is not easy to discern the manifold connexions between the exchange of wares and the exchange of ideas.³ Significant illustrations may be seen in the spread of Albigenian doctrines from Italy to France and the Low Countries through the industrial population—weaver (*textor*) and heretic were often synonymous in the North—and in the share of the Italian cities in the transmission of Byzantine learning to

¹ Haskins, *Norman Institutions* (Cambridge, Mass., 1918), p. 193.

² G. Bourgin, *La commune de Soissons* (Paris, 1908); A. Giry, *Les Établissements de Rouen* (Paris, 1883-85); Mary Bateson, "The Laws of Breteuil," *E. H. R.*, xv-xvi (1900-01).

³ On the travel of merchants, see H. Pirenne, *Mediaeval Cities* (Princeton, 1925), and his references; and J. W. Thompson, *An Economic and Social History of the Middle Ages* (New York, 1928), ch. 23. On their education, Pirenne, in *Annales d'histoire économique et sociale*, i. 13-28 (1929).

the West through Italians resident at Constantinople (Burgundio the Pisan, Moses of Bergamo, James of Venice, etc.). The intellectual role of the cities is, however, hard to follow in the case of the Crusades, for alongside the general enlargement of experience and of the subject-matter of romance there is little to set in the way of new scientific knowledge from the East. The Crusaders were, in the nature of the case, not scholars or men of ideas: the amount of translation from the Arabic in Palestine and Syria is surprisingly small, and even the new geographical learning filters very slowly indeed into the manuals of the thirteenth century.¹ Fairs are an especially important phase of urban intercourse, while toward the close of the Middle Ages the growth of capitals and metropolitan markets in the case of London and Paris introduces a new relation whose intellectual implications need further study.² By this time, too, there was a bourgeois literature and art to communicate from town to town.

The importance of the mediaeval universities in the spread of knowledge may be taken for granted. By its very definition a *studium generale* was open to scholars from every country, and students and professors passed freely from one institution to another, carrying with them books and lecture-notes and whatever else their heads contained. These conditions secured easy communication between distant seats of learning, while they also favoured the quick diffusion of knowledge through the educated class. Moreover, the universities were the earliest centres of the book trade as we understand it, and the provisions for the multiplication, sale, and rent of standard works helped these at least to travel by their own momentum. In these respects the university life of the later Middle Ages reached a comparatively close approximation to early modern conditions; the chief difference, to use Shaw's phrase, lay in the iconography. From the thirteenth century onward we can

¹ *Mediaeval Science*, chs. 7, 10; J. K. Wright, *Geographical Lore of the Time of the Crusades* (New York, 1925), pp. 77, 87, 292.

² T. F. Tout, *The Beginnings of a Modern Capital* (British Academy, 1923); the volumes of Marcel Poëte on mediaeval Paris; and the studies of N. S. B. Gras on the metropolitan market.

register with some definiteness the knowledge of the university world, and the principal scholastic writers have been the subject of minute investigation. The obscurer problems lie rather in the period immediately preceding—the sources and the course of the new Aristotle, the new medicine, and the new Euclid and Ptolemy; the origin and career of the Northern translators who appear unheralded in Spain and Sicily; the routes by which their work passed northward, and its reception in the monastic and cathedral schools of the twelfth century. Michael Scot suddenly makes his appearance at Toledo in 1217; what was his earlier career? Daniel of Morley toward 1200 returned to England from Spain with “a precious multitude of books”; what did they contain? Did the Fourth Crusade have any discoverable relation to the spread of Greek learning? ¹ How much does Christian music owe to the Arabs?

The migration of books is always an important phase of the migration of ideas, and this was peculiarly true in the Middle Ages, when scholarship depended in so large a degree upon antecedent authority. The choice spirits of all ages have influenced one another with surprising disregard of time and space, the spirit leaping from one to another as it listeth through the medium of the written page; but in the Middle Ages everything turned on the transmission of the written page. “Plato,” says Coulton,² “might have shaken hands with Anselm,” but actually he could not, for Anselm had access to no work of Plato save a part of the *Timaeus*. For various reasons books had very little independent movement of their own. Being valued neither as furniture nor as fuel, they were closely connected with the centres of intellectual activity, and the migration of books is for the most part a phase of the intercourse between such centres.

I do not mean to claim exhaustiveness for the foregoing list of centres active in the spread of ideas and information, still less to imply that each worked at long range only and in entire

¹ We need more studies like that of Miss Dorothy Stimson, *The Gradual Acceptance of the Copernican Theory* (Columbia University thesis, 1917), or of J. W. Thompson on Arabic science in Lorraine, *Isis*, xii, 184-193 (1929).

² G. G. Coulton, *Five Centuries of Religion* (Cambridge, 1923-), i, 21.

isolation from the others. Recent studies show interrelations between the regular and the secular clergy in the same neighbourhood,¹ and interpenetration of the lay and ecclesiastical worlds in art and music and literature to an extent once deemed impossible. Nevertheless, the main problem lies in tracing the connexions within these respective sets of centres, the paths along which ideas moved from place to place. These obscurer topics require investigation at once more thorough and more comprehensive than heretofore. On the side of detailed research we need to know more of mediaeval roads viewed as lines of communication, and their relations to the centres of learning and literature. "In the beginning was the road," says Bédier.² The general course of the roads is known,³ but the historical facts have not been sufficiently grouped about them and analysed, their 'wayfaring life' has not been sufficiently explored.⁴ We also need to study more closely the 'wanderings and homes of manuscripts,' the catalogues of mediaeval libraries, the content of the European mind at definite intervals.

A realistic study of the spread of knowledge must also take account of the rapidity of movement, the rate as well as the route. The report of Frederick Barbarossa's death in Asia Minor required four months to reach Germany, while the news of Richard's captivity in Austria reached England in about as many weeks. At this period the normal time from Rome to Canterbury was seven weeks, but urgent news could make the journey in four.⁵ Was the rapidity with which books crossed Europe really so remarkable as it seemed to Renan? ⁶ How

¹ E. g., G. R. Coffman, "A New Approach to Mediaeval Latin Drama," *Modern Philology*, xxii. 239-271 (1925).

² *Les légendes épiques* (2d ed., Paris, 1914-21), iii. 367.

³ There is still room for local monographs of the type of E. Sthamer's "Die Hauptstrassen des Königreichs Sicilien im 13. Jahrhundert," in *Studi di storia napoletana in onore di Michelangelo Schipa* (Naples, 1926), pp. 97-112.

⁴ The example set by the charming book of J. J. Jusserand, *English Wayfaring Life in the Middle Ages* (3d ed., London, 1925), has not been sufficiently followed.

⁵ R. L. Poole, *The Early Correspondence of John of Salisbury* (British Academy, 1924), p. 6. F. Ludwig, *Untersuchungen über die Reise- und Marschgeschwindigkeit im XII. und XIII. Jahrhundert* (Berlin, 1897), is useful so far as it goes.

⁶ E. Renan, *Averroès* (Paris, 1869), pp. 201 f.

fast did a book or a scholar actually travel? What do we know about the exchange of letters in the days before the post?

We also need to apply to the Latin literature of the period more of the searching investigation of origins and connexions which has been applied to the vernacular, and to consider more closely the mutual relations of Latin and vernacular. Above all, for many of these problems we need the combined effort of the historian, the geographer, the philosopher, the philologist, and the archaeologist, specialists who have too often, especially in the United States, worked in the isolation of separate compartments.

May I re-enforce this argument by citing two pieces of synthetic research performed by scholars outside the conventional field of history yet yielding results of wide significance to the historian? One is the work of Bédier on the mediaeval epic, the other the recent study of Romanesque sculpture by Arthur Kingsley Porter.¹ Bédier, by a brilliant combination of evidence drawn from literature, history, topography, and archaeology, places the French epics in an entirely new light, both as literary and as historical documents. Instead of resting upon songs and sagas of the earlier Middle Ages, these poems are shown to belong to the eleventh and twelfth centuries, whose point of view and conditions of life they reflect, and to represent specific sources of information, not the vague and elusive *tout le monde* of popular tradition. They were composed in large measure for the travelling public of pilgrims and frequenters of fairs, and to a considerable degree out of local materials furnished by those concerned with specific shrines and relics, especially shrines situated along the great routes of pilgrimage, Roman roads then marked by masses of Roman ruins in which many of the imaginary scenes are localized. Written by travellers and for travellers, they must be interpreted in relation to Rome and Com-

¹ Bédier, *Les légendes épiques*, ed. cit.; A. K. Porter, *Romanesque Sculpture on the Pilgrimage Roads* (10 vols., Boston, 1923). I do not mean to imply that all the conclusions of these scholars have won universal acceptance. For a good example of the application of Bédier's method to other mediaeval material, see Ezio Levi, "Troveri ed abbazie," in *Archivio storico italiano*, serie vii, iii. 45-81 (1925).

postela, while they show the closest co-operation of classes once deemed entirely distinct, the monks and the jongleurs, and a free interpenetration of vernacular and sacred literature. Even Charlemagne, grim conqueror of the Saxons and the Avars yet unknown to the Northern epic, is annexed by the pilgrim and the crusader and turned toward the South and the pilgrims' roads, defending Rome from Saracens who had never been there in his time, celebrated above all for the three journeys consuming fourteen years in Spain, which he visited but once, blazoned forth on the windows at Chartres for the journey to Constantinople and Jerusalem, which he never took at all. And Einhard's sentence on Roland, sometimes considered an interpolation, becomes the plausible origin of the *Chanson de Roland*, which celebrates specific shrines on the pilgrims' and crusaders' road to Spain—a combination of the knightly and the clerical, of the Latin and the vernacular which breaks down all the watertight compartments of convention.

To this demonstration of the inadequacy of merely regional and traditional explanations in the fluid material of literature Porter's study comes as a sort of corollary in the stiffer medium of stone. Here the theory of provincial schools of Romanesque architecture had already admitted Byzantine influences in Périgord and evident relationship between the sculpture of both sides of the Pyrenees. By close study of the monuments along the pilgrimage roads Porter shows the northward spread of Byzantine influences and the type of the Holy Sepulchre; but his fullest demonstration traces the diffusion of Cluniac art, first in Burgundy, then to England, Galicia, Germany, Apulia, and Palestine, but especially by the great road to the shrine of St. James at Compostela, along which "there was a distinct tendency for Cluniac priories, for relics, and for monumental sculpture to gather."

This particular mode of inquiry is not, of course, to be imitated everywhere. The science of the Arabs came from Toledo, not Compostela; the religious ideas of St. Francis did not spring from the French songs which he loved in his worldly youth; the sources of the *Canterbury Tales* cannot be traced at wayside

stations on the Old Kent Road! What is of general validity for the spread of ideas is the emphasis upon habitual lines of communication, the fresh scrutiny of all available material, the realistic and many-sided approach, the combined attack at once by land and sea and air!

Finally, it may perhaps be suggested that the older modes of communicating ideas have not, even now, entirely disappeared, but survive in ways which are often overlooked. If the newer psychology detects mediaeval survivals in the contemporary mind of the individual, attention may also be called to their persistence in our social mind in the mechanism by which ideas pass from group to group. We are too prone to forget the prevalence of intellectual stratification and non-communicating groups. Ideas still move in part according to social and intellectual units. Thus universities and academies are still to a certain extent, though in a far less degree, islands in the midst of ignorance; scientists communicate with scientists, and professors with professors, without regard to the intervening medium. So Greenwich Village speaks to Greenwich Village, while the Ku Klux Klan may flourish in the shadow of great universities. Chesterton says somewhere that the Englishman who goes abroad to see different peoples could find greater surprises in his own kitchen. So-called high-brow movements in politics are too apt to think only of other high-brows and forget the 'low-brow' voters of whom majorities are made. Illustrations could be multiplied indefinitely; I have meant merely to suggest that certain contemporary conditions can be more easily understood in the light of the intellectual history of earlier times.

CHAPTER V

THE LATIN LITERATURE OF SPORT¹

THE Mediaeval Academy of America, by the terms of its organization, is interested in every phase of mediaeval civilization. Literature, language, art, archaeology, history, philosophy, science, religion, folk-lore, economic and social conditions and matters of daily life—nothing is foreign to us. The whole breadth of the Middle Ages is ours, the only limits are chronological. While, however, the Academy has thus staked out a large field for itself, it has no desire to dislodge or interfere with previous cultivators. Its purpose is rather to break new ground where possible, to supplement existing agencies, and to serve as a clearing-house and meeting-point for investigators. Especially does it seek to promote combined and co-ordinated effort in the study of those aspects of the Middle Ages which need the united forces of historians, philologists, archaeologists, students of art, literature, and philosophy. It welcomes new material, new attacks on old problems, new points of view, new syntheses.

Inevitably one of the major concerns of the Academy is Mediaeval Latin. Not only is the Academy itself the outgrowth of a Committee on Mediaeval Latin Studies, but nothing can better express and illustrate its interest in a many-sided approach to mediaeval culture. Without Latin no understanding of the Middle Ages is possible. The international language of the epoch, it was the speech of treaties and formal international intercourse, of the international church in all its relations, and of religious observance in the several countries of the Occident. Men prayed in Latin, sang in Latin, preached in Latin throughout Western Christendom. It was the language of education, as reflected in text-books and lectures, in student conversation, and in the intercourse of educated men. Learned early, it was in such constant use that there was little likelihood of its being

¹ Presidential address delivered at the annual meeting of the Mediaeval Academy of America, 30 April, 1927; printed in *Speculum*, ii. 235-252 (1927), and here revised.

forgotten. It was the language of philosophy and theology and serious literature in general. Down into the thirteenth century it was the almost exclusive language of history and also of law, both in the form of legislation and of current record, the language of administration in charter and writ and fiscal account, whether on the part of royal treasurers or of local bailiffs. If it was the language of science, it was also a language of *belles lettres*, of poetry and parody, of tales and stories, of drama and romance. Though it ultimately yielded these more popular themes to the vulgar tongues, Latin literature long ran parallel to the vernacular, which in many fields it had preceded. There is no aspect of mediaeval life which does not leave its traces in Latin.

Nevertheless, so enormous is the amount of serious literature in Latin, theological, philosophical, religious, legal, and didactic, that its mere bulk creates the danger of taking the period too soberly, if not too sadly, and of falling into that gloom from which our President sought to release us in his address of last year.¹ I cannot hope to vie with Professor Rand as a dispeller of gloom, but I may perhaps re-enforce his point by an example drawn from a different field, the literature of sport. We shall understand the Middle Ages better if from time to time we glance at their lighter side, and we shall likewise understand the significance of Latin better if we recall that even in their gayer moments men did not shake off their Roman inheritance. If they played in Latin as well as prayed in Latin, we ought to know it, prepared for the worst. And if my theme appear trivial to the sober-minded, I can further plead in extenuation that it is now April, Chaucer's April, and Saturday.

Tempus instat floridum,
Cantus crescit avium,

sang the Goliardi, likewise in Latin.

In the long perspective of the literature of sport, from the victors' odes and systematic treatises of the Greeks to the contemporary glorifications of big game and big games, a place

¹ E. K. Rand, "Mediaeval Gloom and Mediaeval Uniformity," *Speculum*, i. 253-268 (1926).

must be found for what was written in Latin, since no international language could remain untouched by so universal a human interest. Curiously enough, this phase of Latin literature is mediaeval, and not Roman. The Romans had spectacles rather than sport; they took their exercise vicariously on the side-lines, applauding the professional gladiators and charioteers who existed for their amusement. Under such circumstances it was natural that they should produce no Pindaric odes, none of those works on hunting and fishing which the Greeks turned out naturally, not even any important translations of these. Hunting, a servile occupation according to Sallust—and a chilly one according to Horace—but popular among the provincials of the Empire, inspired nothing beyond the meagre verse of obscure writers like Grattius and Nemesianus.¹ The 'mule medicine' of the later Empire served agriculture, not sport, and sport has no place in agricultural literature, whether in prose or verse. Thus Varro's chapter on wild boars is occupied merely with fattening them in captivity, and leads up to a chapter on fattening snails, at best a slow sport! The Romans wrote no books on racing; inveterate gamblers, they did not even write on betting. The arm-chair sportsman who went beyond such works as Pliny's *Natural History* was forced to read Greek.

Even the circuses and spectacles which were so important in the life of mediaeval Constantinople disappeared from the West. The Western Church set its face against them as works of the Devil, and their literary memory was preserved chiefly in Isidore's *Etymologies* and the flaming denunciation of Tertullian *On Spectacles*. The arenas became ruins or castles, and men went to church. The sports of the Middle Ages spring up anew out of combat, out of hunting and hawking, and out of various minor forms of amusement, sports of the nobility rather than of the populace and reflected for it in the new courtly literature of the time. They leave little record from the earlier Middle Ages,² but by the twelfth and thirteenth centuries they have

¹ Cf. the utilitarian attitude of the Arabs toward sport. Louis Mercier, *La chasse et les sports chez les Arabes* (Paris, 1927), p. 244.

² See G. W. Pfändler, "Die Vergnügungen der Angelsachsen," in *Anglia*,

begun to create a literature of their own, and first of all in the chief language of the period, Latin. In general these Latin writings antedate the better-known vernacular works of the fourteenth and fifteenth centuries, but there is much overlapping and translation back and forth between the several idioms. Still, back of the English period and the French period in the literature of sport lies a Latin period. We must not, however, infer from this that Latin had a place in the actual language of sport analogous to that held by English in recent times and, somewhat earlier and to a more limited extent, by French. Those who knew Latin best, the clergy, were debarred from most forms of sport, and the knights who made up the sporting class rarely knew Latin. If men wrote on sport in Latin, they commonly hunted and fought in the vernacular. The Latin treatise usually codified vernacular practice. And when one who knows both Latin and sport comes along in the person of the scholar-emperor Frederick II, he complains that he cannot find suitable Latin equivalents for the technical terms of falconry. So the more classically minded, who derived tournaments (*Troiana agmina*) from Troy via the games described in the *Aeneid*, would have found serious gaps in the Virgilian vocabulary.

The major sport of the Middle Ages was war, with its adjuncts the tournament, the joust, and the judicial duel. War had its open and closed seasons dependent upon conditions of climate and upon the great festivals of Christmas, Easter, and Ascension, even its attempts at quiet week-ends in the Truce of God, and the right of private war was the most valued of the sporting privileges of the mediaeval barons; but war was after all grim business rather than sport, the vocation rather than the avocation of the military classes, dominating their life and giving colour to their amusements. Business or sport, war produced no original literature beyond that recording deeds of valour and military prowess. Vegetius was copied, excerpted, and imitated

xxix. 417-524 (1906); and for Old French the monographs listed by Ch.-V. Langlois, *La vie en France au moyen âge*, i, nouvelle éd. (Paris, 1926), appendice bibliographique, nos. 18, 19, 103, 195, 201.

in the monasteries, but no new mediaeval works on military science arose in his place,¹ whether in Latin or in the Western vernaculars, to parallel the great Byzantine works on tactics. Just as description of feudalism began when feudalism was declining, so treatises on tournaments meet us only when the institution is about to disappear, the best example being the *Traité de la forme et devis d'un tournoi* of that patron of the Renaissance, good King René of Provence. Appropriately enough for what was peculiarly a French sport (*ludi gallici*), this was written in French.²

The judicial duel, on the other hand, that crowning illustration of the sporting theory of justice, did produce a Latin literature, for it early fell into the hands of the lawyers, who wrote in Latin. This ancient institution not only canalized into legal channels something of the fighting instincts of the epoch, but it gave wide scope to those technicians of sport who have been in all ages concerned with the qualifications, equipment, and handicaps of contestants, particularly after the introduction of hired champions raised complicated questions of eligibility and professionalism. So in that age of *summae*, the thirteenth century, the eminent civilian Roffredo of Benevento composed a *Summa de pugna*, where he discusses the cases to which the wager of battle is applicable and the cases in which champions are allowed to take the place of those handicapped by youth, old age, illness, sex, servile rank, or ecclesiastical disabilities. The defects of the duel as a form of sport appear in his uncertainty as to the proper procedure when one of the contestants loses his weapons (c. 9):

Some say that if the weapons are broken others should be given, since the battle must legally be fought with clubs, but that if the weapons fall to the ground others shall not be supplied, and he who has dropped his

¹ On the predominant influence of Vegetius upon the tactical works which appear in the later Middle Ages, see M. Jähns, *Geschichte der Kriegswissenschaften* (Munich and Leipzig, 1889-91), i. 125, 186 f.; H. Delbrück, *Geschichte der Kriegskunst*, iii, 2d ed. (Berlin, 1923), pp. 669-677; the edition of Aegidius Romanus in R. Schneider, *Die Artillerie des Mittelalters* (Berlin, 1910), pp. 105-182; and the *Pulcher tractatus de materia belli*, ed. A. Pichler (Graz, 1927).

² See J. J. Jusserand, *Les sports et jeux d'exercice dans l'ancienne France* (2d ed., Paris, 1901), pp. 73 ff.

arms must blame himself and his evil fortune. For if arms are given back to a man when he is losing, this would really be lifting him up and starting him a second time, which would be unjust. Others say that arms are not to be given back whether they break or fall. In this matter we declare that the custom of the place should be observed and if there is no custom then what seems most just and equitable to the judge shall prevail.¹

Already the judicial duel has begun to decline; Roffredo's contemporary and one-time master, the sporting emperor Frederick II, found it to be only "a sort of divination, out of harmony with natural reason, common law, and equity."²

Next to war came the chase, that sport of all times and places, which was considered the special delight of kings and princes. The vernacular literature of the chase is well known, at least from the fourteenth century: the *Livre du Roi Modus et de la Reine Ratio*; the *Ars de venerie* of William Twici, master huntsman of Edward II; the *Roman des dēduis* of Gace de la Buigne; and the famous *Livre de chasse* of that mighty hunter and master of six hundred well-loved dogs, Froissart's patron, Gaston Phébus, count of Foix.³ The Latin literature is earlier, going back apparently to the eleventh century, and clearly antedating the great cyclopaedias of the thirteenth century in which it is cited. Severely practical throughout, it is concerned in the first instance with the animals which aid in the chase, horses, dogs, hawks, and falcons, and especially with the diseases of these and their remedies. It would be rash to deny any connexion between this and the veterinary medicine of antiquity, but for the most part it shows a humbler origin, its precepts drawn rather from the popular cures and leechdoms of current practice. All kinds of ailments are included, even parasites re-

¹ Edited by F. Patetta, *Le ordalie* (Turin, 1890), pp. 478-492; and in A. Gaudenzi, *Bibliotheca iuridica mediæ ævi*, ii (Bologna, 1892), pp. 75-83. Cf. the Scottish examples in G. Neilson, *Trial by Combat* (London, 1890), cc. 65, 66, 73, 74; and B. Prost, *Traité du duel judiciaire* (Paris, 1872).

² Constitutions of 1231, ii, 33, ed. J. L. A. Huillard-Bréholles, *Historia diplomatica Friderici Secundi* (Paris, 1859 ff.), iv, 105.

³ See H. Werth, "Altfranzösische Jagdlehrbücher," in *Zeitschrift für romanische Philologie*, xii (1888), especially pp. 383-415. D. H. Madden, *A Chapter of Mediaeval History: The Fathers of the Literature of Field Sport and Horses* (London, 1924), is a popular account, devoted almost entirely to vernacular writers.

ceiving careful attention to a degree which reminds one of the course on 'Domestic Entomology' announced by an American agricultural college. Those who practise this art, says Adelard of Bath,¹ not only must be sober, patient, and chaste, alert and of sweet breath, but must avoid those from whom hawks might become infested with vermin, for which special remedies are prescribed. These treatises, chiefly relating to falcons, claim an ancient origin under such titles as the letters "of Aquila and Symmachus and Theodotion to King Ptolemy" and "of Giro-sius the Spaniard to the Emperor Theodosius," and they have parallels in Byzantine literature. Those who derive falconry from the East would doubtless trace them all to the Orient, but in these days of multiple hypotheses it is not necessary to assume a common origin for the Norway falcons supplied annually to King Henry II of England² and the hawking which Marco Polo describes at the court of the Great Khan. Certainly the treatise which Adelard of Bath in the early twelfth century compiled from 'King Harold's books' and his own experience shows no indebtedness to the East,³ and the same is apparently true of the work of one Grimaldus, 'Count of the Sacred Palace,' which meets us in an eleventh-century manuscript at Poitiers.⁴ By the thirteenth century we have translations from the Arabic, notably the work of Moamin on the diseases of falcons and hawks turned into Latin *ca.* 1240 by Theodore, court philosopher of Frederick II, and the similar work of a certain Yatrib. Another popular Latin treatise goes under the name of an imaginary King Dancus but cites the precepts of William, falconer of King Roger of Sicily, one of the earliest authorities on this art. In spite of its brief account of the different species of hawks and falcons, this is still a work on diseases rather than on sport proper, and the same can be said of the earliest mediaeval book on horses, compiled in Latin by Giordano Ruffo

¹ *E. H. R.*, xxxvii. 399 (1922).

² See the passages from the Pipe Rolls collected by A. Bugge, *Diplomatarium Norvegicum*, xix, nos. 35 ff.

³ See *Mediaeval Science*, ch. 17, and cf. L. Mercier, *La chasse et les sports chez les Arabes* (Paris, 1927).

⁴ MS. 184, ff. 70-73: 'Incipit opusculum Grimaldus baiuli et comitis sacri palatii ad Karulum regem de dieta ciborum et nutritura ancipitrum.'

of Calabria for Frederick II and soon translated into Italian and other languages.¹ So their contemporary, Albertus Magnus, while devoting most space to horses and hawks in his great treatise *On Animals*, concerns himself only with their diseases.²

The sport of falconry first comes fully to its own in the *De arte venandi cum avibus* of the Emperor Frederick II. Of Frederick as a man of science I have written elsewhere³—his spirit of free inquiry, his keen interest in animals, his tireless observation and experiment on birds, his wide-ranging activity as a collector, his extraordinary menagerie of beasts from other climes. In another age he might have stalked big game in Africa or explored the fauna of the Upper Amazon with the energy of a Theodore Roosevelt, but without sharing the Rooseveltian certainties or zeal for the betterment of his fellow men. In any event he was one of the great sportsmen of the Middle Ages and indeed of any age, a tireless devotee of hunting who delighted in the wings of a bird as well as in the strength of a horse and the legs of a man. A man of the open air, his sporting life can be followed in fragments of his administrative correspondence, but best of all in his own treatise on falconry to which he devoted the leisure of thirty years. This art, he tells us, "we have always loved and practised," and his high standard of sport stands out in his description of the ideal falconer:

Whosoever desires to learn and practise the art of hunting with birds, so as to be competent in feeding, keeping, taming, carrying, and teaching them to hunt other birds, in hunting with them, and if necessary in curing their diseases, should have with him the science of this book, both what is now said and what follows, and when he has this in sufficient measure from one worthier he may receive the title and name of falconer. [Of medium stature and medium weight] he must not weary of the art or the necessary labour, but should love it and persevere in it so that even in old age he shall be no less devoted to it, all of which will come from the love which he has for the art. For since the art is long and many new things happen in its pursuit, one should never desist from its practice but keep it up throughout life in order to attain greater perfection therein. The falconer should have great natural intelligence, since,

¹ *Mediaeval Science*, p. 256.

² *De animalibus*, ed. H. Stadler (Münster, 1916-20), xxii, 2, 1, cc. 52-93, xxiii, 1, cc. 1-24, pp. 1377-1400, 1453-93.

³ *Mediaeval Science*, chs. 12, 14. Cf. *infra*, Chapter VI.

although he will learn much concerning birds from the experts in this art, he will still need to discover and devise many things out of his own head as occasion arises. For it would be impossible and it would in any case be tiresome to write down everything and consider all possible eventualities, both good and bad, in dealing with individual birds of prey of different temperaments, so let each man supply what is needed from his own mind and from the art of this book. . . . Of those who follow this art there are some who practise it neither to satisfy appetite nor for the sake of gain nor even for the joy of the eye, but only for the sake of having the best birds of prey which shall bring them surpassing fame and honour, and who take their delight in this, that they have good birds.¹

Frederick's *De arte* has not reached us in its original form, which included material on hawks and on diseases of falcons which is absent from the surviving manuscripts, perhaps also books on other forms of hunting which he promises "if life permit." A book of his on hawks and dogs was captured at the

¹ 'Quicumque itaque vult discere et exercere artem venationis cum avibus ad hoc quod possit esse sufficiens in nutriendo, etiam custodiendo mansu-faciendo portando docendo ipsas ut venentur alias aves, in utendo eis in venationibus et in curando eas si opus fuerit, oportet ut in se habeat ea que dicentur iam et postea scientiam huius libri, que omnia cum sufficienter habuerit a digniori nomen accipiens falconarius poterit merito nuncupari. Qui sit mediocris stature ne propter magnitudinem superfluum plus lassus et minus agilis habeatur neque propter parvitatem nimiam sit minus agilis tam equester quam pedester. Sit mediocris habitudinis ne propter extenuatam maciem deficiat sustinere laborem aut frigus neque propter corpulentiam et pinguedinem nimiam fastidiat laborem et calorem et pigrior et tardior habeatur quam convenit huic arti. Non fastidiat artem neque laborem sed diligat et perseveret in ipsa in tantum quod etiam quando devenerit ad senectutem non minus intendat arti, quod totum procedit ex amore quem habebit in arte. Cum enim ars longa sit et plura in usu secundum eam noviter incidunt, nunquam debet homo desistere ab exercitio huius artis sed perseverare quamdiu vixerit ut ipsam artem perfectius consequatur. Debet esse perfecti ingenii, ut, quamvis didicerit plura et a doctis huius artis circa ea que sunt necessaria avibus, tamen ex suo naturali ingenio sciat invenire et excogitare que necessaria fuerint incidenter. Non enim esset possibile scribere singula et noviter emergentia in operationibus bonis et malis avium rapacium, nam cum diversorum sint morum longe durum esset scribere omnia, pro qua re singulis [singulus?] ex suo ingenio et ex arte huius libri quicquid erit expediens ministrare tenetur . . . Alii intendunt in hoc neque causa gule neque causa lucris alterius neque etiam causa delectamenti visus sui, sed tantum ut habeant suas aves rapaces bonas et meliores quam ceteri ex quo adquirant sibi famam et honorem pre ceteris, et in hoc habent magnum delectamentum, scilicet quod habent bonas aves.' Vatican, MS. Pal. Lat. 1071, ff. 68r-69v; Bibliothèque Mazarine, MS. 3716, pp. 173-177: *Reliqua librorum Frederici II Imperatoris de arte venandi cum avibus*, ed. J. G. Schneider (Leipzig, 1788-89), i. 107-109.

great defeat before Parma in 1248, and was in the hands of a certain William Bottatus of Milan in 1264; this *de luxe* copy then disappears, and King Manfred had access only to an incomplete text and scattered notes of his father's which he used in his revision of the first two books. Manfred's revision is the basis of the printed editions, although they lack the beautiful illuminations with their extraordinarily faithful depiction of birds which have come down to us in the Vatican manuscript. Four other books as yet unpublished are preserved in a different family of manuscripts, but we must repeat that we have not the work as Frederick planned it, perhaps not as he executed it.¹

The first complete treatise on the subject of falconry, as its author tells us, the *De arte* is a big book, five hundred and eighty-nine pages in the Mazarine manuscript, and a detailed book. It is a scientific book, approaching the subject from Aristotle but based closely on observation and experiment throughout. *Divisivus et inquisitivus*, in the words of the preface, it is at the same time a scholastic book, minute and almost mechanical in its divisions and subdivisions. It is also a rigidly practical, even a technical book, written by a falconer for falconers and condensing a long experience into systematic form for the use of others. To the great regret of the modern reader, it is not discursive or narrative, for there are few specific references to time or place and no hunting stories. Only between the lines can we see the emperor rising betimes for a morning's sport beside Apulian watercourses, writing respecting the homes and haunts of herons in Sicily, ranging the country about Gubbio under a winter sky for those fat cranes which he describes in a letter to one of his falconers in the South.² Everywhere it is the work of a sportsman.

After a preface exalting the art of falconry, the first book is devoted to zoology, and very good zoology it is, treating of the structure and habits of birds in general and then of birds of prey in particular. Book Two then takes up the rearing, feeding, and

¹ I have discussed the manuscripts and editions of the *De arte* in my *Mediaeval Science*, ch. 14. The preparation of a critical edition has at last been undertaken by Professor J. Strohl of Zurich.

² Huillard-Bréholles, *Historia diplomatica*, v. 510, 698.

seeling of falcons, and the implements of the art, including the hood which the emperor borrowed from the Arabs on his Crusade and improved for Western use. Book Three is concerned with various kinds of lures and their use, especially those made of cranes' wings for that noblest of birds the gerfalcon, and the special training of the swift-footed dogs necessary to aid the falcon against large birds. In Book Four we reach the climax, the pursuit of cranes with gerfalcons, for "cranes are the most famous of all birds which birds of prey are taught to hunt, and the gerfalcon is the noblest of birds of prey and the bird which captures cranes better than other falcons and best goes after them."¹

When a falconer goes out to hunt cranes with the gerfalcon his garments should be short, for the sake of greater agility, and of a single colour, preferably grey or an earthen hue such as farmers wear, for such clothing best stands exposure to changes of place and weather. If he wears fine and many-coloured raiment with striking colours, his prey will more quickly fly away. He should have on his head a broad hat, so as to conceal his face from the cranes and frighten them as little as possible, and, if need be, to shelter the falcon from sun, wind, and rain. He will also need heavy leggings as a protection against water and brambles. His horse should be gentle and quiet, running only at the rider's will and not quickening his pace if the reins are thrown on his neck when that hand is busy with the falcon, obedient and swift-footed and quick to turn to right or left when there is need. He should not be frightened by sudden or strange sounds nor should he whinny easily, for this scares the birds. He must not be hard in the mouth or difficult to curb, lest he injure the falcon in hastening to its aid, and there should be no bells on bridle or breastpiece, which would also frighten the birds.²

¹ 'Sed quoniam grues sunt famosiores inter omnes aves non rapaces ad quas docentur capiendas aves rapaces et girofalcus nobilior est avibus rapacibus et est avis que melius capit grues quam alii falcones, et que melius volat ad ipsas.' Mazarine MS. 3716, p. 282.

² 'Falconarius quando exire debet foras ad exercendum venationem cum girofalcis ad grues habeat pannos vestimentorum suorum curtos, ut agil[i]or sit cum eis, et si[n]t unius coloris qui color sit bisus aut similis coloris terre quali panno utuntur coloni, tales enim panni exponuntur convenientius oportunitatibus temporum et locorum. Si vero vestes haberet splendidas et variorum colorum per quos colores panni essent melius discernibiles, quando indutus talibus pannis exiret foras ad venandum aves quas capere intendunt cum falconibus, minus expectarent et facile aufugerent. Habeat pileum amplum super caput, ut per ipsum minus appareat facies eius gruibus et per hoc minus pavescant, et sub ipso defendat falconem a pluvia vento et sole si necesse

The habits of cranes are taken up in detail, their feeding according to climate, season, and time of day, the advantages and disadvantages of the various sorts of ground, the means employed to separate one or two or three cranes from the flock, the various methods of attack, the six reasons why a gerfalcon may be driven back by a crane. There is a concluding comparison of the gerfalcon with other falcons. The treatment in the two remaining books is closely parallel, dealing with the hunting of herons with the sacred falcon and of river birds with the peregrine falcon. Thus it is said that against herons, which nest in cane-brakes and in trees near the water, the best time to train falcons is the nesting season, which is early; the best terrain for hunting them is low, open places and small, tortuous rivers. They feed especially on fish, lizards, and young frogs ("worms with a large head and a small tail which are said to become frogs when they grow up"),¹ and move southward as the water-courses freeze over toward winter, though a few remain in the North about warm springs. Their migrations are discussed according to the seasons, and it is noted that they are most abundant in Egypt. All this is preliminary to a detailed discussion of the actual pursuit of herons, which closes again with a comparison of the characteristics of the sacred falcon with other birds.

The thirteenth century, which saw the climax of the Latin literature of sport in the *De arte*, also saw its disappearance before the vernacular, unless we make a place for some Latin

fuerit. Habeat ocreas crossas in cruribus suis que sint tutamen tibiaram et pedum contra aquam cardos et spinas et cetera nocumenta. Equus vero quem equitare debet sit mitis stans quiete qui non currat nisi ad voluntatem equitantis et, si dimittantur habene sibi super collum causa faciendi aliquid circa falconem cum alia manu, ipse equus non acceleret propter hoc passum suum sed sit obediens et agilis ad girandum se de[x]trorsum et sinistrorsum ubi necesse fuerit et velox ad currendum. Non sit ad improvisa aut insueta pavescens neque hyniat libenter, nam aves ad auditum hinitus aufugerent. Non sit effrenis neque dure boce, quoniam quando curreretur ad succurrendum falconi posset de facili pesundari falconem. Non habeat frenum aut pectorale cum nolis seu campanellis quarum sonitu possent deterr[er]i aves.' Bibliothèque Mazarine, MS. 3716, pp. 373 f.: Rennes, MS. 227, p. 248.

¹ 'Vermium crossi capitis et pectoris subtilis caude de quibus dicitur quod fiunt rane quando crescunt.' Bibliothèque Mazarine, MS. 3716, pp. 423 f.

verse of the Cinquecento.¹ The beginning of the century produced the Provençal *Romans dels auzels cassadors* of Daude de Pradas, which probably had predecessors in the vernacular, and Frederick II's son Enzo was the patron of the translator of Moamin and Yatrib into French. Before the end of the century Frederick's *De arte* has been turned into French, and brief works in French and Italian prefigure the more ambitious treatises of the fourteenth century.²

Likewise, it would seem, of the thirteenth century is a brief unpublished treatise on hunting the stag, *De arte bersandi*, which goes under the name of Guicennas,³ "most excellent hunter by the testimony of the princes of Germany and especially of the hunters of Emperor Frederick." It begins: ⁴

Si quis scire desiderat de arte bersandi, in hoc tractatu cognoscere poterit magistratum. Huius autem artis liber vocatur Guicennas et rationabiliter vocatur Guicennas nomine cuiusdam militis Theutonici qui appellabatur Guicennas qui huius artis et libri materiam prebuit. Iste vero dominus Guicennas Theutonicus fuit magister in omni venacione et insuper summus omnium venatorum et specialiter in arte bersandi, sicut testificabantur magni barones et principes Alamanie et maxime venatores excellentis viri domini Frederici Romanorum imperatoris. Dixitque ergo hic dominus Guicennas quod qui vult scire et esse perfectus in arte ista primo debet apponere cor et etiam voluntatem, et debet esse levis et non piger. Debet etenim cogitare ad occidendum bestiam quam venatur.

Audiatis ergo de ista venacione que quasi domina omnium venacionum reputatur. Primum oportet quod bersator sciat bene trahere et bene menare bestias, et cum istis continentur bene multe alie, ut videlicet quod bersator debet scire aptare brachetum ad sanguinem, et sciat bene stare ad arborem et habeat bonam memoriam rememorandi ubi posuit archarios, et hec est res que magis convenit bersatori quam alii venatori. . . .

After further description of the qualifications of the hunter we are told that he should also know how to make an arrow and

¹ See J. E. Harting, *Bibliotheca Accipitraria* (London, 1891), pp. 163-167.

² *Mediaeval Science*, ch. 17. See now Gunnar Tilander, "Étude sur les traductions en vieux français du traité de fauconnerie de l'Empereur Frédéric II," in *Zeitschrift für romanische Philologie*, xlvii, 211-290 (1926).

³ For the possible identification of Guicennas as Konrad von Lützelhard, see *infra*, p. 131.

⁴ Vatican, MS. Reg. Lat. 1227 (saec. xv), foll. 66 v-70 r; MS. Vat. Lat. 5366 (ca. 1300), foll. 75 v-78 v: 'Incipit liber Guicennatis de arte bersandi.'

a leash as well as how to sound his horn and dress a stag. His equipment should contain among other things cord and flint (*petra focalis*) and hammer and nails for shoeing his horse in case of necessity. After several chapters on the training of brachets to follow the deer, the author ends with this account of an actual pursuit, even to such details as the disposition of the archers and the patting of the dog's head:

Postquam vero bersatores viderint bestias, illi qui debent menare debent equitare quasi ante faciem bestiarum et debent facere similitudinem quasi non videant eas, et postea circum eas, si bestie expectant, pone archatorem quasi contra primam spalam bestiarum et alium archatorem quasi ad pectus et tercium archatorem quasi ad alteram spalam sive ad pulmonem, et taliter sint ordinati quod unus non possit ferire alterum cum archabunt ad bestias. Si vero unus archator esset qui libentius trahat aliis, pone illum retro pectus bestie. Si vero recedunt bestie et fugerent multum a longe et non videres illas et velles ire retro illas, tunc pone brachetum in terra et reinvenies eas cum bracheto, et quando videbis eas surgere brachetum attira retro te et frica caput leviter cum manu et monstra ei bonam voluntatem, et istud est quare brachetus multum se letificat. Postea equita circumgirando bestias sicut superius diximus archatoribus ordinatis, et si bestie sunt bone pone archatores deprope et fac trahere taliter ut bestie non videant eos, quia si bestie viderent eos ipse irent tam solitarie quod non posses taliter facere alia vice quod ipse bestie non viderent te. Item debes equitare cum bestiis quamdiu potes, quia quanto cum illis equitabis tanto meliores erunt et quando equitabis post bonas bestias. *Explicit liber Guicennatis de arte bersandi.*

Fishing, on the other hand, has left no similar literary remains from our period, for it was not a recognized sport of the upper classes. There was, of course, the example of St. Peter—did not the Popes seal their breves *sub annulo piscatoris*?—and fish were a necessity during Lent, but neither the castle and monastery fish ponds nor the great herring fleets of the North tempted a mediaeval Izaak Walton to discourse upon angling as a fine art. Nor did the Middle Ages take kindly to other forms of aqueous diversion. No one wrote on swimming, although the Latin chroniclers recount such exploits as the feats of Lady Petronilla in the fish pond at Guines¹ or of a diver known as Nicholas the Fish who explored the watery fastnesses

¹ Lambert of Ardres, ed. J. Heller, in SS., xxiv. 629.

of Scylla and Charybdis at the behest of Frederick II.¹ There is a literature on bathing, notably verse on the baths of Pozzuoli,² but this is medicine, not sport. A bath in the Middle Ages was a serious affair!

Serious, too, is the treatment of hawking, hunting, and fishing in the manual of country life by Petrus de Crescentiis, whose *Ruralium commodorum libri XII* was written ca. 1300 and went through many printed editions both Latin and vernacular.³ Serious, but hardly sporting, for to him wild beasts are either food, or nuisances to be exterminated after taking them as best one can. What shall we say of a man who catches fish with nets, with quicklime, and—horror of horrors!—with a baited hook? Somehow we do not visualize this sober Bolognese agriculturist as taking a day off with the patient anglers by the banks of Seine, nor yet as registering Viscount Grey's self-denying vow not to fish the trout streams in imagination before the first of January. Still, his book has a traditional place in the lists of collectors' books on sport, and it is germane to our present purpose in reminding us that the oldest mediaeval treatises on agriculture are written in Latin, like their models Varro and Palladius.

Like everything else in the Middle Ages, hunting might become a theme for sermonizing, as in a Latin homily preserved at Graz. The text, "Naphtali is a hind let loose" (Genesis, xlix. 21), is explained on patristic authority as typifying Christ, hunted as a stag through many passages of simile and with copious references to the general vocabulary of the chase. Here again Latin crowds close on the vernacular.⁴

¹ Salimbene, ed. O. Holder-Egger, in *SS.*, xxxii. 250 f.

² See Ries, in *M. I. O. G.*, xxxii. 576 ff. (1911), and the literature there cited.

³ The most recent discussions of Petrus are by G. Zaccagnini in *Il libro e la stampa*, n.s., vi. 133-136 (1912); Lodovico Frati, "Pier de' Crescenzi e l'opera sua," in *Atti e memorie della R. deputazione di storia patria per le provincie di Romagna*, 4th series, ix. 146-164 (1919); Anna Röding, *Studier till Petrus de Crescentiis och hans antika källor* (Göteborg, 1927). I have not seen Luigi Savastano, "Contributo allo studio critico degli scrittori agrari italiani: Pietro dei Crescenzi," in *Annali della R. Stazione Sperimentale di Agrumicoltura e Frutticoltura*, v (1922).

⁴ A. E. Schönbach, "Miscellen aus Grazer Handschriften. 7. Eine Jagd-

Of all indoor games, chess easily took the lead in the Middle Ages. Indeed, we are told that "especially from the thirteenth to the fifteenth century chess attained to a popularity in Western Europe which has never been excelled and probably never equalled at any later date."¹ As the favourite pastime of lords and ladies chess leaves its trail throughout the mediaeval chronicles and at greater length in the feudal romances, while it develops a considerable literature of its own, and this largely in Latin. As an excellent survey of these texts exists in Mr. H. J. R. Murray's *History of Chess*, we shall confine ourselves to brief extracts by way of illustration. There are three principal types of these treatises: "didactic works, generally in verse, which are intended to teach beginners the moves and the most elementary principles of play, or to give a rapid description of the game"; moralizing works; and collections of chess problems.² The first and third of these have a modern sound, although Alexander Neckam in a Latin chapter on the rules of chess, *ca.* 1200, finds it necessary to begin with the statement that the game was invented by Ulysses, and in closing to illustrate the passionate devotion of the players by reference to the romance of *Renaud de Montauban*: "How many thousands of souls were sent to hell in consequence of that game in which Reginald the son of Eymund, while playing with a noble knight in the palace of Charles the Great, slew his opponent with one of the chessmen."³ Even so did Homer sing of the many valiant souls of heroes which Achilles had sent to Hades before their time.

The 'moralities' are more characteristically mediaeval. An age which allegorized everything from the Bible to the spots on dice was not likely to neglect the opportunity presented by a popular game which suggested on the very surface the course of battle, the classes of society, and the vanity of all things

predigt," in *Mittheilungen des historischen Vereines für Steiermark*, xlviii. 192-201 (1900).

¹ H. J. R. Murray, *A History of Chess* (Oxford, 1913), p. 428.

² *Ibid.*, p. 418.

³ *Ibid.*, pp. 501, 512, 741. See Neckam, *De naturis rerum*, ed. T. Wright (Rolls Series), pp. 324-326.

earthly. Thus we read in the so-called *Innocent Morality*, which is obviously of English origin:

The world resembles a chessboard which is chequered white and black, the colours showing the two conditions of life and death, or praise and blame. The chessmen are men of this world who have a common birth, occupy different stations and hold different titles in this life, who contend together, and finally have a common fate which levels all ranks. The King often lies under the other pieces in the bag.

The King's move and powers of capture are in all directions, because the King's will is law.

The Queen's move is aslant only, because women are so greedy that they will take nothing except by rapine and injustice.

The Rook stands for the itinerant justices who travel over the whole realm, and their move is always straight, because the judge must deal justly. . . .

The Pawns are poor men. Their move is straight except when they take anything; so also the poor man does well so long as he keeps from ambition. . . .

In this game the Devil says 'Check!' when a man falls into sin; and unless he quickly cover the check by turning to repentance, the Devil says, 'Mate!' and carries him off to hell, whence is no escape. For the Devil has as many kinds of temptations to catch different types of man, as the hunter has dogs to catch different types of animals.¹

Much more elaborate is the enormously popular work of the Lombard Dominican, Jacopo da Cessole, of which we have perhaps a hundred manuscripts in Latin, not to mention early editions and vernacular versions, including an English one by Caxton. When we learn that these twenty-four chapters are really an expanded sermon, we are prepared to find that its chess is secondary to its moral teaching and that it is better described by its sub-title *Liber de moribus hominum et officiis nobilium*. It begins and ends with Babylon, the large, square city of Jeremiah, for the betterment of whose king Evil-Merodach chess was originally devised, and its description of the various classes of society is full of second-hand illustrations, chiefly out of John of Salisbury and the Bible. Thus the knights serve as a text for the military and knightly virtues, with quotations from Paul the Deacon and many Gentile writers, and mention of Alexander, David, and Codrus, Sulla, Damon and

¹ Murray, p. 530.

Pythias, and the laws of Lycurgus. The knight's victorious progress across the board shows that he who humbleth himself shall be exalted.

Finally it must be remembered that the game of chess was supposed, in England at least, to have another application, namely, to the reckoning of the king's Exchequer, the name of the Arabic chessboard having reached the royal treasury long before the Arabic numerals. The Exchequer unquestionably drew its name from the checquered table or chessboard (*scaccarium*) about which the royal reckoning took place, and it was easy to find a parallel with this royal game in which the king was never mated. Thus the *Dialogue on the Exchequer* says:

For just as, in a game of chess, there are certain grades of combatants and they proceed or stand still by certain laws or limitations, some presiding and others advancing: so, in this, some preside, some assist by reason of their office, and no one is free to exceed the fixed laws; as will be manifest from what is to follow. Moreover, as in chess the battle is fought between kings, so in this it is chiefly between two that the conflict takes place and the war is waged,—the treasurer, namely, and the sheriff who sits there to render account; the others sitting by as judges, to see and to judge.¹

To quote the *Dialogue*² is to remind ourselves that the Exchequer also had a Latin literature of its own, the earliest detailed description of fiscal operations of any Western government of the Middle Ages, and a very remarkable description for the twelfth or any other century. Later the Exchequer even inspired poetry, of a very mediocre sort, in the lines which describe the functions and the corruption of its members, *ca.* 1400:

O scacci camera, locus est mirabilis ille;
Ut dicam vera, tortores sunt ibi mille.

.
Dici miranda scacci domus ergo valebit,
In qua si danda desint *chekmatque* patebit.³

¹ i, 1, as translated in E. F. Henderson, *Select Historical Documents of the Middle Ages* (London, 1892), p. 24. On the chessboard of the Exchequer, cf. R. L. Poole, *The Exchequer in the Twelfth Century*, pp. 100-101.

² The date of composition is usually given as 1178-79, but cf. H. G. Richardson in *E. H. R.*, xliii. 161-171, 321-340 (1928).

³ Printed in full by Mrs. M. D. George and C. H. Haskins in *E. H. R.*, xxxvi. 58-67 (1921).

When Latin verse reaches this point, it is time to stop, checked.

This essay makes no claim to have exhausted the Latin literature of sport, even in its systematic forms, while of course there is much to glean from scattered references in the Latin chronicles, stories, and poetry of the epoch. I trust, however, that enough has been said to establish my main contention that there is a considerable body of such material in Latin, and that account must always be taken of Latin sources for the lighter as well as for the more serious sides of mediaeval life. *Omnia tempus habent*, said a book much read in the Middle Ages, and a *tempus ridendi* and a *tempus saltandi* are included in the Preacher's ensuing enumeration. There was a time for play in Latin as well as in the vernacular, as the copyists remind us:

Explicit expliceat, ludere scriptor eat.

CHAPTER VI

LATIN LITERATURE UNDER FREDERICK II ¹

THE personality and influence of the Emperor Frederick II have long constituted a fascinating problem for the historian.² *Stupor mundi* to his contemporaries, to Nietzsche he is still a *Rätselmensch*, along with Alcibiades, Caesar, and Leonardo da Vinci, "the first of Europeans according to my taste"³—one of the interesting men who will be absent from the Christian Heaven.⁴ Poet, philosopher, zoologist, observer, experimenter, sportsman, enlightened legislator yet persecutor of heretics, intimate friend of Jews and Mohammedans, master of many tongues and devotee of all sorts of learning, he seemed a universal genius, *universale in tutte le cose*. "Had he but loved God and his church and his own soul," says his contemporary Salimbene,⁵ "he would have had few equals." Early, too, he became the theme of legend, identified with Antichrist by ecclesiastical writers, so that even Dante finds him burning in Hell with the Epicurean heretics, while in popular tradition he forms the nucleus of the German *Kaisersage*, as he sleeps in his enchanted cavern in the mountains awaiting the fateful day when he and his knights shall come down to restore the Empire and deliver the oppressed. This many-sided figure has been variously judged from the different points of view of Empire or Papacy, Germany or Italy, scepticism or belief, politics or culture. Scholars still discuss whether he belongs to the Middle Ages or the Renaissance, to the beginning or end of an epoch, to his own time or to all time, ageless and universal.

¹ Revised from *Speculum*, iii. 129-151 (1928).

² See the excellent sketch of Karl Hampe, *Kaiser Friedrich II. in der Auffassung der Nachwelt* (Stuttgart, 1925). There has since appeared the stout volume of E. Kantorowicz, *Kaiser Friedrich der Zweite* (Berlin, 1927), stimulating but highly systematic and as yet giving no evidence for its assertions. On Frederick in prophecy and legend, see also A. de Stefano, *Federico II e le correnti spirituali del suo tempo* (Rome, 1922).

³ *Beyond Good and Evil*, tr. Helen Zimmern (New York, 1923), c. 200.

⁴ *Werke* (Leipzig, 1885-1926), xvi. 291; cf. viii. 310; xiii. 327, 335, 337; xv. 22.

⁵ Ed. O. Holder-Egger, in SS., xxxii. 349.

On the whole, understanding of Frederick has grown with understanding of the Middle Ages, especially as we see him in the light of the Sicilian tradition of his grandfather, Roger II, in his relations with the Arabic culture of his own epoch, and against the background of thirteenth-century Italy.¹ In attempting to fill in something more of this Italian background, we must be careful not to regard the Emperor as a merely Italian phenomenon, even as others have misunderstood him by judging him only as a German ruler. By the very fact of his Sicilian inheritance Frederick was born into the centre of Mediterranean politics and civilization, while the imperial dignity and the German kingship gave him a European position beyond the Alps as well. So cosmopolitan a personage inevitably left his impress in many languages. Thus Frederick is a clear figure in the Arabic writers of his time, as well as in his own scientific and diplomatic correspondence with Mohammedan sovereigns. The Jewish translator, Jacob Anatoli, praises Frederick as a 'friend of wisdom and its votaries,' and hopes the Messiah may come in his reign.² A king whose laws had to be issued in a Greek version for the benefit of his Greek-speaking subjects might well expect to be eulogized by Greek poets of Southern Italy such as John of Otranto and George of Gallipoli,³ while his passing is mourned for Eastern Greeks in a funeral oration by Theodore Lascaris.⁴ In the Western vernaculars he is celebrated by Provençal troubadours and German minnesinger and reflected in the Sicilian verse of his own *Magna Curia*, some of which apparently bears his own name.⁵ Nevertheless, in

¹ See, in general, H. Niese, "Zur Geschichte des geistigen Lebens am Hofe Kaiser Friedrichs II.," *Historische Zeitschrift*, cviii. 473-540 (1912); and for palace life, A. Haseloff, *Die Bauten der Hohenstaufen in Unteritalien* (Leipzig, 1920 ff.).

² See *Mediaeval Science*, pp. 251-253.

³ K. Krumbacher, *Geschichte der byzantinischen Litteratur* (2d ed., Munich, 1897), p. 769; N. Festa, "Le lettere greche di Federigo II.," in *Archivio storico italiano*, 5th series, xiii. 1-34 (1894).

⁴ J. B. Pappadopoulos, *Théodore II Lascaris* (Paris, 1908), pp. 183-189; *Buḡavris*, ii. 404-413 (1912).

⁵ References on the vernacular writers of Frederick's time are conveniently brought together by E. H. Wilkins, "The Origin of the Canzone," in *Modern Philology*, xii. 135-166 (1915); for Provençal relations, cf. G. Bertoni, *I trovatori d'Italia* (Modena, 1915), pp. 25-27; O. Schultz-Gora, *Ein Sirventes von Guilhem*

Frederick's time Latin was still predominantly the language of history and law, of education and learning, and even of much imaginative writing, and it is in the Latin literature of his age that we may expect to find the fullest reflection of this many-sided personality. Something of this was directly called forth or encouraged by Frederick himself, on the part of members of his court or others; something he occasioned indirectly as the object of attacks from his enemies; while still more treated him but incidentally as one of the prominent men of his generation.¹ We shall try to bring together some facts concerning the literature to which he gave positive encouragement, particularly in his southern kingdom, with some reference to that which was produced by way of hostile reaction, in the hope of understanding somewhat better the condition of Latin literature in the Italy of the thirteenth century, in relation to the age which followed as well as to Frederick himself.

To speak of Frederick II as a patron of literature and learning may easily give rise to a false impression, as if he represented the common type of Maecenas which satisfies its intellectual interests vicariously, by hiring writers and scholars rather than by personal effort. Whatever Frederick did, he did with his might, and his own initiative and participation are as apparent in discussion and experiment² as they are in war and sport.

Figueira gegen Friedrich II. (Halle, 1902), pp. 33-38. The latest account of the Sicilian school is G. A. Cesareo, *Le origini della poesia lirica* (2d ed., Milan, 1924). See F. Torraca, *Studi su la lirica italiana del duecento* (Bologna, 1902). For a critical edition and discussion of the poems ascribed to Frederick himself, see H. H. Thornton, in *Speculum*, i. 87-100 (1926); ii. 463-469 (1927).

¹ It would be interesting to follow Frederick through the Latin collections of *exempla* of the thirteenth and fourteenth centuries. Thus he appears in the two Franciscan collections recently brought to light by L. Oliger: "Liber exemplorum Fratrum Minorum saeculi XIII," in *Antonianum*, ii. 203-276 (1927), nos. 129-131; and "Servasanto da Faenza O. F. M. e il suo 'Liber de virtutibus et vitiis,'" in *Miscellanea Ehrle*, i. 148-189 (1924), p. 185, note 1 (this story is also cited in *Mediaeval Science*, pp. xiv, 263). Cf. J. T. Welter, *Tabula exemplorum*, p. 106.

² For an illustration, see the questions addressed by the Emperor to Michael Scot, published and translated in *Mediaeval Science*, pp. 266-267, 292-294; reprinted and discussed, with a German version, by Hampe, in *Festgabe für W. Goetz* (Leipzig, 1927), pp. 53-66, who proposes to date them 1227. Cf. E. F. Jacob, in *History*, xi. 243 (1926); and Kantorowicz, *Kaiser Friedrich der Zweite*, pp. 323 ff.

His autocratic government and large revenues gave him resources for pursuing his inquiries, but they did not set him apart from his helpers and associates. Everything points to Frederick as the most active force of the court as well as its superior intelligence.

Accordingly, we must remember at the outset that Frederick was himself a Latin author, quite apart from whatever Latin writings he may have directed or inspired. Latin style was probably one of the subjects in which as a youth he received instruction from Willelmus Franciscus,¹ and we later hear of Latin orations² as well as Latin writings from his pen. How far he was himself affected by the baroque Latin of the South it is impossible to say, for the pompous language of his legislation doubtless owes less to the Emperor than to his jurists and secretaries, nor can we safely seek his personal touch in what the Pope called the *dictatoris facunditas*³ of the correspondence which emanated from his chancery. In the one work which is clearly Frederick's, the treatise on falconry (*De arte venandi cum avibus*),⁴ the treatment is matter-of-fact, the style simple and unadorned, with some looseness and repetition and much evident influence of the vernacular, for whose technical terms he has difficulty in finding Latin equivalents. Such glimpses of the real Frederick do not, however, suffice to prove that he may not have indulged in fine writing on other occasions or that he looked with disfavour upon the Latin which his legislation borrowed from the *Code* of Justinian. Indeed, an autocrat who cut off the thumb of a notary for misspelling his name⁵ is not likely to have tolerated a style foreign to his taste. Save in the *De arte*, we cannot distinguish the imperial Latin from that

¹ Hampe, in *M. I. O. G.*, xxii. 575-599 (1901); and in *Historische Zeitschrift*, lxxxiii. 8-12 (1899).

² Niese, in *Historische Zeitschrift*, cviii. 532; Wolfram von den Steinen, *Das Kaisertum Friedrichs des Zweiten nach den Anschauungen seiner Staatsbriefe* (Berlin and Leipzig, 1922), p. 15.

³ Bull of Gregory IX, 15 July, 1233. J. L. A. Huillard-Bréholles, *Historia diplomatica Friderici secundi* (Paris, 1852-61), iv. 444.

⁴ See *Mediaeval Science*, ch. 14; *supra*, Chapter V; and the forthcoming edition of J. Strohl.

⁵ Salimbene, p. 350.

of Piero della Vigna and the other jurists and notaries of the court.

Respecting Frederick's encouragement of learning, the chronicler who passes by the name of Nicholas of Iamsilla, and who was perhaps a notary of Manfred,¹ tells us that at Frederick's accession there were few or no scholars in the Sicilian kingdom, and that it was his task by liberal rewards to attract masters from various parts of the earth. Concerning literature the classical passage is one in Dante's *De vulgari eloquentia*² which celebrates Frederick and his son Manfred—in intellectual history the two reigns belong together—as the illustrious heroes who, while fortune permitted, disdained lower occupations and followed humane pursuits, 'wherefore those of noble heart and gracious endowment tried to follow their majesties, so that whatever in their time the excellent minds of the Latins strove to produce, first saw the light in the court of these rulers.' Dante, however, is speaking from the point of view of vernacular letters, and the glory of the *Magna Curia* as the cradle of Italian poetry is sufficiently attested by the long list of Sicilian poets who held office under Frederick, not to mention his specific aid to German and Provençal versifiers. On the Latin side Frederick's court is less well known, but it must form the starting-point of our inquiry. Let us begin with a rough list of the Latin works known to have been dedicated to the Emperor or written by members of his court:³

1. Michael Scot, court philosopher from ca. 1227 to his death shortly before 1236, dedicated to Frederick (a) *Abbreviatio Avicenne de animalibus*, before 1232; and, after 1228, his three treatises on astrology and related matters: (b) *Liber introductorius*; (c) *Liber particularis*; and (d) *Physionomia*. See my *Mediaeval Science*, ch. 13; "Michael Scot in Spain," in *Homenaje á Bonilla y San Martín*

¹ L. A. Muratori, *Rerum Italicarum scriptores* (Milan, 1723-38), viii. 495-496. Cf. A. Karst, in *Historisches Jahrbuch*, xix. 1-28 (1898).

² i, c. 12.

³ Cf. the longer list which I have drawn up for Henry II of England: *Essays Presented to Thomas Frederick Tout* (Manchester, 1925), pp. 71-77, to which may be added the medical treatise of Daniel Church: E. Faral in *Romania*, xlv. 247-254 (1920).

(Madrid, 1927-29), ii; "The Alchemy Ascribed to Michael Scot," *infra*, Chapter VII.

2. Theodore of Antioch, court philosopher and Arabic secretary, probably succeeding Scot, and mentioned from 1238 till his death in or just before 1250, prepared for the Emperor's benefit (a) a treatise on hygiene extracted from the *Secretum secretorum* of the Pseudo-Aristotle; and (b) a translation of Moamyn, *De scientia venandi per aves*, corrected by the Emperor in 1240-41. See *Mediaeval Science*, pp. 246-248, 318 f. Theodore of Antioch is to be distinguished from his younger contemporary, the Dominican friar Theodoric the Catalan, on whose medical writings see Louis Karl, "Recherches sur quelques ouvrages scientifiques du moyen âge," in *Revue des bibliothèques*, xxxviii. 49-62 (1928).

3. Piero della Vigna, judge of the *Magna Curia* (1225-47), logothete and protonotary (1247-49). More or less doubtful letters addressed to the Emperor, including a eulogy (*Epp.*, iii. 44). See Huillard-Bréholles, *Vie et correspondance de Pierre de la Vigne* (Paris, 1865); and the literature cited below.

4. Terrisio di Atina, professor of rhetoric at the University of Naples. Poem addressed to the Emperor requesting a reform of judicial abuses. Edited in part by E. Winkelmann, *De regni Siculi administratione* (Berlin, 1859), pp. 55-56; completely by G. Paolucci, "Documenti inediti sulle relazioni tra chiesa e stato nel tempo Svevo," pp. 21-23, in *Atti* of the Palermo Academy, 3d ser., v (1900), and by F. Torraca, "Maestro Terrisio di Atina," in *Archivio storico per le province napoletane*, xxxvi. 251-253 (1911).

5. Petrus de Ebulo, court poet of Henry VI, to whom he dedicated the *Liber ad honorem Augusti* (see E. Rota's edition in the new edition of Muratori's *Rerum Italicarum scriptores*, xxxi, and G. B. Siragusa's in *Fonti per la storia d'Italia*, xxxix), and probably the 'magister Petrus versificator' whom Frederick mentions as dead by 1220; addresses to Frederick, 'Sol mundi,' 1211-20, a poem on the baths of Pozzuoli. A lost history, *mira Federici gesta*, to which he refers, seems to have dealt with Frederick Barbarossa. See R. Ries, *M. I. O. G.*, xxxii. 576-593, 733 (1911), and the works there cited.

6. Adam, chanter of Cremona, *Tractatus de regimine iter agentium vel perigrinantium*. With preface dedicated to Frederick ca. 1227. Ed. Fritz Hönger, *Aerztliche Verhaltensmassregeln auf dem Heerzug ins Heilige Land für Kaiser Friedrich II. geschrieben von Adam von Cremona* (Leipzig diss., 1913).

7. Leonard of Pisa, *Liber quadratorum*, dedicated to Frederick in 1225 (?), besides other mathematical works discussed with the Emperor and members of his court. See *Mediaeval Science*, p. 249.

8. Henry of Avranches, three fulsome eulogies, in hexameters, addressed to Frederick ca. 1235-36. Ed. E. Winkelmann, *Forschungen zur deutschen Geschichte*, xviii. 482-492 (1878). On Henry as an international poet, see the unpublished Harvard thesis of J. C. Russell and his summary in *Speculum*, iii. 34-63 (1928); and *infra*, p. 145.

9. Richard, judge of Venosa, *De Paulino et Polla*, comedy dedicated to Frederick in the governorship of Raynaldus, 1228-29:

Hoc acceptet opus Fredericus Cesar, et illud
Maiestate iuvet atque favore suo!
Cuius ad intuitum Venusine gentis alumnus
Iudex Ricardus tale peregit opus.

Edited by E. Du Ménil, *Poésies inédites du moyen âge* (Paris, 1854), pp. 374-416. To the six MSS. there mentioned, two have been added by R. Peiper, *Archiv für Literaturgeschichte*, v. 540 (1875); and there is another in the Vallicelliana at Rome, MS. C. 91, ff. 45-67 v. For the contents and date, see W. Cloetta, *Beiträge zur Literaturgeschichte des Mittelalters und der Renaissance*, i (Halle, 1890), pp. 94-96, 157-159; W. Creizenach, *Geschichte des neueren Dramas* (2d ed., Halle, 1911-23), i. 35-37; and *infra*, p. 144.

10. Orfino of Lodi, judge, *De regimine et sapientia potestatis*, a poem of ca. 1600 lines on the podestà, written under the patronage of Frederick of Antioch after 1244, and beginning with a laudation of Frederick II and his court. Ed. A. Ceruti, in *Miscellanea di storia italiana*, vii. 27-94 (1869); cf. F. Hertter, *Die Podestäliteratur Italiens im 12. und 13. Jahrhundert* (Leipzig, 1910), pp. 75-79, and V. Franchini, *Saggio di ricerche su l'istituto del podestà nei comuni medievali* (Bologna, 1912), p. 255.

11. Giordano Ruffo of Calabria, a marshal of the Emperor, prepared under Frederick's direction and completed after his death a treatise on the diseases of horses; the first mediaeval work on its subject in Latin, this was widely copied, translated, and imitated. Edited by H. Molin (Padua, 1818); see *Mediaeval Science*, p. 256, and the works there cited.

12 (?). 'Guicennas' (?), a German knight, 'master of all kinds of hunting, especially by the testimony of Emperor Frederick's huntsmen,' *De arte bersandi*. Unpublished. See *Mediaeval Science*, p. 256; *supra*, Chapter V. Professor Hampe suggests to me that Guicennas

is possibly to be identified with Konrad von Lützelhard, who is called Guizenardus in a letter of 1230 printed in *Acta pacis ad S. Germanum initiae* (M. G. H., *Epistolae selectae*, iv, 1926), pp. 52-53.

13 (?). Petrus Hispanus (later Pope John XXI), if we accept the doubtful ascription in Harleian MS. 5218, f. 1: *Epistola magistri Petri Hyspani missa ad imperatorem Fridericum super regimen sanitatis*. See L. Thorndike, *History of Magic and Experimental Science* (New York, 1923), ii. 489, and particularly M. Grabmann, "Mittelalterliche lateinische Aristotelesübersetzungen und Aristoteleskommentare in Handschriften spanischer Bibliotheken," pp. 98-113, Munich S. B., 1928, no. 5.

14 (?). Friar Elias of Cortona, who went over to the imperial party after his deposition from the generalship of the Franciscans in 1239; certain of the doubtful alchemical works ascribed to him purport to be dedicated to Frederick. See *Mediaeval Science*, p. 260; Thorndike, *op. cit.*, ii. 308, 335; G. Carbonelli, *Sulle fonti storiche della chimica e dell'alchimia in Italia* (Rome, 1925); and Chapter VII, below, p. 158, note 3.

15 (?). Vididenus (?), *Liber septem experimentorum ad imperatorem Fridericum*. See Thorndike, *op. cit.*, ii. 803.

16 (?). *Epistola domini Castri dicti Goet de accidentibus senectutis missa ad Fridericum imperatorem*. An unidentified treatise which is no. 49 in a list of manuscripts copied at the direction of Ivo I, abbot of Cluni (1256-75). L. Delisle, *Inventaire des manuscrits de la Bibliothèque Nationale: Fonds de Cluni* (Paris, 1884), p. 379.

Such a list must in the nature of the case be far from a complete enumeration of the writers who can claim Frederick as their patron, but it is none the less significant and, to a certain extent, typical, both for what it contains and for what it omits. That most of these works should treat of science, or what then passed for science, is of course consonant with all that we know of the Emperor's tastes and experimental habit of mind, as revealed more fully in his own treatise on falconry and his scientific correspondence and questionnaires. Similarly the books on

¹ Cf. the various works which purport to have been translated into French for Frederick: *Mediaeval Science*, p. 254; Ch.-V. Langlois, *La connaissance de la nature et du monde* (Paris, 1927), pp. 198-208. The Vittorio Emanuele Library at Rome has a MS., no. 380, f. 6, containing 'Receptario de Galieno translato de latino in vulgare per lo eccellente medico maistro Johanne Saraceno medico etc. et mandato a lo imperatore.'

falconry and hunting are indicative of his well known love of sport. Neither of these aspects of his intellectual interests need detain us here, for they have been already studied elsewhere.¹ So we are prepared to find translations of scientific and philosophical writings, indeed Frederick's reputation as a promoter of translation from the Arabic would lead us to expect more of such versions than can actually be traced to his influence, even if we add to the versions of Michael Scot and Jacob Anatoli the pseudo-Aristotelian and astrological writings turned into Latin in Sicily at the command of King Manfred. The importance of Frederick's court as a centre of translation has plainly been exaggerated.²

On the other hand, the absence of any books of history is surprising. Recent investigation will have it that an important Ghibelline source for this reign has been lost in the work of Bishop Mainardino da Imola, who stood in close relations to Frederick and his court, and there may be other such losses to mourn.³ There is, however, no evidence that Frederick II encouraged an official historiography in any sense parallel to that which flourished under Frederick Barbarossa, and to the paucity of Ghibelline histories we owe not only the predominantly hostile tone of the sources toward Frederick but also the scantiness of the record for many important phases of his reign. Frederick not only had a 'poor press' among his contemporaries, there were times when he had no press at all. His light went out suddenly in the midst of his career, and, as we see from the unfinished state in which he left his own work on falconry, there was no period of peaceful repose at the end when an account of his reign might have been rounded out with the Emperor's

¹ *Mediaeval Science*, chs. 12-14; *supra*, Chapter V.

² *Mediaeval Science*, pp. xiv, 260-261, 269-270; see also Huillard-Bréholles, *Pierre de la Vigne*, pp. 282-283. Cf. M. Grabmann, *Forschungen über die lateinischen Aristotelesübersetzungen des XIII. Jahrhunderts* (Münster, 1916), and his forthcoming paper on translation at the court of Frederick II.

³ P. Scheffer-Boichorst, *Zur Geschichte des XII. und XIII. Jahrhunderts* (Berlin, 1897), pp. 275-283; F. Güterbock, "Eine zeitgenössische Biographie Kaiser Friedrichs II.," in *Neues Archiv*, xxx. 35-83 (1905); Hampe, *Kaiser Friedrich II. in der Auffassung der Nachwelt*, pp. 7, 60. Cf. also B. Schmeidler, "Der sogenannte Cusentinus bei Tolomeus von Lucca," in *Neues Archiv*, xxxii. 252-261 (1906).

approval. Nor did the next generation labour to fill this gap, for Frederick's line came to a swift end with Manfred and Corradino, and their Angevin enemies and successors had no desire to brighten its posthumous renown. For all succeeding generations Frederick's reputation was to suffer from the lack of any official biography. Furthermore, as Hampe has pointed out,¹ the ecclesiastical opponents of Frederick remained in possession of the historical field, and shaped the record in the great Guelfic compilations of the Franciscans and Dominicans, in which the whole life of the Emperor gets its colour from the bitter controversies of his later years, when he took on the semblance of Lucifer and Antichrist. The influence of Frederick on the writing of history was mainly the stimulus of opposition, and the phrases of the historians go back to the fulminations of Gregory IX and Innocent IV and the pamphleteers of their time.²

The answer to these, so far as there was an answer, lies in Frederick's own state papers, as drafted in large measure by his judge and secretary, Piero della Vigna.³ The well known characterization of Dante, who makes Piero hold the keys to Frederick's heart, locking and unlocking it at his pleasure,⁴ is matched by an earlier Latin eulogy by Piero's friend Nicola della Rocca.⁵ What Piero closes, he says, "none can open, and what he opens none can close." He is another Moses who brought back the law from the Mount, another Joseph to whom the Emperor commits the government of the round earth, another Peter, a rock of security who has not denied his Lord. The letters of

¹ Hampe, *op. cit.*, pp. 9-13.

² Friedrich Graefe, *Die Publizistik in der letzten Epoche Kaiser Friedrichs II.* (Heidelberg, 1909); cf. O. Vehse, *Die Amtliche Propaganda in der Staatskunst Kaiser Friedrichs II.* (Munich, 1929).

³ See, besides the old editions of S. Schard (Basel, 1566) and J. R. Iselius (Basel, 1740), Huillard-Bréholles, *Vie et correspondance de Pierre de la Vigne* (Paris, 1865), who describes 82 MSS.; and cf. G. Hanauer, in *M. I. O. G.*, xxi. 527-536 (1900); H. Kantorowicz, *ibid.*, xxx. 651-654 (1909); and C. A. Garufi, in *Archivio storico siciliano*, n.s., xxv. 181-183 (1900). On Piero's family, see the documents recently published by Mattei-Cerasoli, in *Archivio storico per le province napoletane*, xlix. 321-330 (1924). The latest discussion of the disputed question of Piero's part in the constitutions of 1231 is that of F. G. Savagnone, in *Archivio storico siciliano*, n.s., xlv. 141-156 (1925).

⁴ *Inferno*, xiii. 58 ff.

⁵ In Huillard-Bréholles, *op. cit.*, p. 290.

Piero are naturally a prime source for Frederick's reign on the intellectual no less than on the political side, indeed their preservation, as they were copied and recopied for two centuries as models of Latin style, is due mainly to literary reasons. These collections, of which perhaps one hundred and fifty manuscripts are known, still await a comprehensive and critical edition. They differ widely in content and arrangement, containing many personal letters and exercises of Piero as well as a mass of official correspondence in the Emperor's name, not to mention some letters of Piero's friends and some pieces which are obviously posterior to his death in 1249.

Whether literary or legal in content, these letters bear the impress of Piero's style, which also appears in the body of the Emperor's constitutions. "Piero," says Odofredus, "spoke obscurely and in the grand manner,"¹ using as he did so the artificial and overladen rhetoric of the Capuan school. The importance of this Capuan group in furnishing secretaries and other officials for the Hohenstaufen court has been made clear by the researches of Hampe and others, but its literary history has still to be written.² When it is written, there can be little doubt that Piero will be the most important member, by reason of his individual position and his influence on his own and succeeding generations. Kantorowicz goes so far as to call him the greatest Latin stylist of the Middle Ages and the last creator in the Latin tongue;³ at least his style was much admired by contemporaries and retained a hold upon letter-writing until it was driven out by the Ciceronians. In any case Piero is the central figure in the Latin literature of Frederick's reign, when "he made the chancery a school of formal style."⁴

Two of Piero's associates represent the same style and school. One of these, Nicola della Rocca, author of more than a score of letters in the collection, including the eulogy of Piero from which we have already quoted, is in relations with various high

¹ *M. I. O. G.*, xxx. 653, note 1.

² Cf. Hampe, *Beiträge zur Geschichte der letzten Staufer: Heinrich von Isernia* (Leipzig, 1910), p. 34.

³ *Kaiser Friedrich der Zweite*, pp. 275, 276.

⁴ Niese, in *Historische Zeitschrift*, cviii. 526.

officials, and himself solicits an appointment as notary at the *curia*.¹ He also requests permission to give a public course on the *ars dictaminis*, perhaps at Naples. The other, Master Terrisio of Atina, is connected not only with the Emperor but with Naples and its new university by various compositions which range from a eulogy of Master Arnold the Catalan, late professor of philosophy, to a letter suggesting that the students appease this 'terror' (Terrisius) of the schools by suitable presents in Lent:

Est honestum et est bonum
Ut magistro fiat donum
In hoc carniprivio.²

Certain of these epistolary collections of the Capuan school fall too early³ or too late⁴ for our purpose, but others illustrate various aspects of Frederick's time.⁵ If Cardinal Thomas of Capua (d. 1239) belongs rather to the papal than to the imperial party, his much copied letters are still of considerable importance for the age in general.⁶ Much fresh material for Frederick's early years has been found by Hampe in a Capuan letter-writer preserved at Paris,⁷ including a description of the young

¹ Huillard-Bréholles, *op. cit.*, nos. 73-97, pp. 368-394.

² Torraca, "Maestro Terrisio di Atina," *Archivio storico per le province napoletane*, xxxvi. 231-253 (1911).

³ P. Kehr, "Das Briefbuch des Thomas von Gaeta," *Quellen und Forschungen aus italienischen Archiven*, viii. 1-76 (1905).

⁴ Hampe, *Beiträge zur Geschichte der letzten Staufer: Heinrich von Isernia* (Leipzig, 1910); K. Rieder, "Das sizilianische Formel- und Aemterbuch des Bartholomäus von Capua," *Römische Quartalschrift*, xx, 2, pp. 3-26 (1906).

⁵ Whether a rhetorician named John of Sicily belongs to Frederick's reign, I am unable to say for lack of characteristic indications in his treatise, which appears in two manuscripts of the Bibliothèque Nationale: MS. lat. 14174, ff. 3-15 v (late thirteenth century); MS. lat. 16617, ff. 206-220 v (early fourteenth century), with some letters following. The treatise begins: 'Incipit rethorica magistri Iohannis de Sicilia in arte dictandi. Cum circa dictamen prosaicum sint multa prosequi volentibus inquirenda . . .'

⁶ The elaborate Heidelberg dissertation of Frau Emmy Heller (1927) remains unpublished. On Thomas as the probable author of the earliest formulary of the papal penitentiary (ed. H. C. Lea, Philadelphia, 1892), see my discussion in the *American Journal of Theology*, ix. 429-433 (1905); and in the *Miscellanea Francesco Ehrle* (Rome, 1924), iv. 275-296.

⁷ Heidelberg S. B., 1910, nos. 8, 13; 1911, no. 5; 1912, no. 14; 1924, no. 10; *Historische Vierteljahrschrift*, iv. 161-194 (1901); vii. 473-487 (1904); viii. 509-535 (1905); *Zeitschrift für die Geschichte des Oberrheins*, n.s., xx. 8-18 (1905).

king about the age of thirteen, "in appearance already a man and in character a ruler."¹ There is another collection at Rheims which has been studied by various scholars,² and still another at Pommersfelden.³

A copy of the Pommersfelden collection, preserved in a manuscript of *ca.* 1400 at Lübeck, still awaits detailed study, although it was described by Wattenbach in 1853.⁴ The letters belong to the time of Frederick II and Gregory IX and centre about Naples, Ischia, and Gaeta, while the name of Iohannes de Argussa, *notarius et curialis* of Ischia, occurs with sufficient frequency to suggest that he had a hand in the making of the collection. We also meet with a certain R., professor of grammar at Naples and teacher of *dictamen tam metricum quam prosaicum*,⁵ a training which Iohannes seeks for his sons as a preliminary to the study of 'physical science' with his brother R. Pictus:⁶

Meritissimo d[o]ctori carissimo fratri suo plurimumque ad omnia diligendo R. Picto egregio magistro studii ficalis magister Iohannes de Argussa eius frater valde devotus salutem et videndi desiderium. Si personarum absencia et diversorum locorum distancia nos sequestrant,

¹ *M. I. O. G.*, xxii. 598 (1901).

² MS. 1275. See C. Rodenberg, in *Neues Archiv*, xviii. 179-205 (1893); W. Wattenbach, *ibid.*, 493-526; Hampe, in *Heidelberg S. B.*, 1913, no. 1; 1917, no. 6; *Historische Vierteljahrschrift*, xxi. 76-79 (1924); and in *Festgabe Friedrich von Bezold* (Bonn, 1921), pp. 142-149; and now the full analysis of Hampe and Hennesthal in *Neues Archiv*, xlvii. 518-550 (1928), who ascribe the collection to Master Symon, clerk of Thomas of Capua.

³ Hampe, in *Heidelberg S. B.*, 1923, no. 8.

⁴ "Iter Austriacum 1853," in *Archiv für Kunde österreichischer Geschichts-Quellen*, xiv. 33, 52-55 (1855). Cf. now Hampe, in *Heidelberg S. B.*, 1917, no. 6; 1923, no. 8; *M. I. O. G.*, xl. 191 (1925); and *Acta Pacis ad S. Germanum initae* (1926), pp. xii-xiii, 100 ff. The MS., which is quite corrupt, is no. 152 at Lübeck, from which I have specimen photographs through the kindness of the Director of the Stadtbibliothek. Since these pages first appeared, I have learned from Professor Hampe (cf. *Acta Pacis*, p. xii; *Neues Archiv*, xlvii. 519) that the Lübeck MS. is only a copy, but a very exact copy, of that of Pommersfelden, which must, of course, be utilized in any definitive edition of the pieces printed in the text.

⁵ Wattenbach, *loc. cit.*, p. 33.

⁶ Lübeck, MS. 152, f. 165. On f. 166, the sons write home for money. Cf. the letter of condolence on f. 163 beginning: 'Fratribus suis carissimis Ber. et A. et ceteris consanguineis plurimum diligendis Iohannes de Ar. dictus magister insula lēē magister et publicus notarius constitutus.'

mens eadem viget in nobis et dilectio permanet illibata. Licet enim pro variis et diversis negociis desiderabilem personam vestram videre non possim, in sompnis et vigiliis ymaginando vos video et intrinsecus affectibus intuemur. Unum tamen semper et incessanter expecto, de salute vestra et iocundis successibus rectati, ut autem mei status integritas vos letos efficiat et iocundos. Noveritis me divini muneris gratia, a quo bona cuncta procedunt, iocunda corporis alacritate potiri et optatis eventibus iocundari, quod de vobis semper prestolor et expecto. Verum quia R. et N. filii mei, quos litterali scientie proposui penitus exhibendos, sine vestro auxilio ad optatum nequeunt pervenire effectum, dilectionem vestram, de qua plenam gero fiduciam, attentius deprecor et exoro quatinus inveniat is, si placet, magistrum ydoneum qui eos promoveat in grammatica et rethorica, quibus sufficienter indictis ad fisicalem scientiam eos inducere valeatis.

The fictitious nature of much of this collection is enhanced by bits of pure fancy, on themes which often go back to the Orleanese *dictatores* of the twelfth century.¹ Thus we here find exchanges between Life and Death, Soul and Body, the Universe and the Creator,² while a more satiric turn appears in the salutation *fornicationi vestre* in place of the regular *fraternitati vestre* in a letter of Gregory IX to his prelates.³ One example will illustrate the literary style as well as the general manner of these epistles; the use of the *ubi sunt* motif may be noted:⁴

Corpus separatum scribit anime

Corpus miserum omni solacio destitutum anime olim sue consocie et sorori pro salute tristitiam et merorem. Pene terribiles et tormenta varia me cohercent, bonis omnibus exuor, et humo glaciali frigore contremisco dum me video nudum terre humatum quam dum modo floream (?) conculcavi. Heu me, ubi est gloria mea? Ubi est dies natiuitatis mee valde iocunda? Ubi sunt dulcissima matris ubera que sugebam et basia patris mei in puericia dulciter explorata? Ubi sunt iocunda parentum gaudia in meis nupciis feliciter dedicata, in quibus diversi cantus exiterant et varia genera musicorum? Ubi est uxor pulcherrima velud stella cum qua cottidie lecto florido amplexibus et basiis delectabar? Ubi sunt equi arma et indumenta serica deaurata quibus cum militibus decorus cottidie apparebam? Ubi sunt varia fercula et vina

¹ E.g., MS. lat. 1093, ff. 68-69; Haskins, *The Renaissance of the Twelfth Century* (Cambridge, 1927), pp. 142-145. Cf. Chapter I, *supra*, pp. 3-4.

² Lübeck, MS. 152, ff. 162 v-163; Wattenbach, "Iter," pp. 54-55; *Neues Archiv*, xlvii. 520 ff.

³ Lübeck, MS. 152, f. 164; Wattenbach, p. 55, where the text should read: 'ut in Cena Domini nostro vos conspectui presentetis.'

⁴ Lübeck, MS. 152, f. 163.

gratissima quibus cottidie dulciter epulabar? Nunc autem me video miserum putridum sub terra iacentem variis plenum vermibus et fetentem. Sufficit ergo mihi ingens tribulatio mea. Dimitte me, rogo, ut paululum requiescam, nam cum in die iudicii te suscepero pene mi sufficient et tormenta. Si quid enim malum me memini commisisse, te operante et te duce nequiter adimplevi.

Such products of the imagination also meet us among the letters ascribed to Piero della Vigna and Terrisio di Atina: the wild beasts of Apulia celebrate a closed season proclaimed by the Emperor;¹ the courtesans of Naples complain to the university professors of their neglect by the students;² Rome writes to her daughter, Florence;³ the qualities of an ideal horse are described;⁴ writers debate the relative merits of birth and character, the rose and the violet.⁵ The following satire on the power of money takes the form of parody of an imperial letter:⁶

Epistola notabilis de pecunia

Pecunia Romanorum imperatrix et totius mundi semper augusta dilectis suis filiis et procuratoribus universis salutem et rore celi et terre pi[n]guedine⁷ habundare. Ego in altissimis habito,⁸ in plateis do vocem meam,⁹ girum celi circuivi sola,¹⁰ feci surdos audire et mutos loqui.¹¹ Amen dico vobis, antequam Abraham fieret ego sum¹² in vestitu deaurato circumdata varietatibus.¹³ Ego, inquam, sum illa preeminens imperatrix per quam genus humanum respirat ad gloriam, per quam multiplicata bonorum fecunditas exhibetur. Esurientes implevi bonis,¹⁴ suscitans a terra inopem et de stercore erigens pauperem.¹⁵ O vos omnes qui transitis per viam, attendite et videte si est honor sicut honor meus;¹⁶ michi enim supplicant omnes reges terre et omnes populi, michi Romana curia famulatur. Ibi est requies mea in seculum seculi, hic habitabo quoniam preelegi eam.¹⁷ Que maior leticia michi posset accidere quam

¹ Edited by Wattenbach, "Über erfundene Briefe in Handschriften des Mittelalters," in the *Berlin S. B.*, 1892, pp. 91-123. Cf. *Neues Archiv*, xlvii. 524.

² Ed. G. Paolucci, pp. 46-47, in *Atti* of the Palermo Academy, 3d ser., iv (1897); and by Torraca in *Archivio storico per le province napoletane*, xxxvi. 248-250.

³ MS. Vat. Lat. 4957, f. 96 v.

⁴ *Ibid.*, f. 42.

⁵ Huillard-Bréholles, *Pierre de la Vigne*, pp. 319, 336.

⁶ MS. Vat. Lat. 4957, f. 43-43 v.

⁷ Genesis, xxvii. 39.

⁸ Ecclesiasticus, xxiv. 7.

⁹ Proverbs, i. 20.

¹⁰ Ecclesiasticus, xxiv. 8.

¹¹ Mark, vii. 37.

¹² John, viii. 58.

¹³ Psalms, xlv. 10.

¹⁴ Luke, i. 53.

¹⁵ Psalms, cxii. 7.

¹⁶ Lamentations, i. 12.

¹⁷ Psalms, cxxxi. 14.

ut cardinales michi colla subiciant et currant in odorem unguentorum meorum? ¹ Levate in circuitu oculos vestros et videte ² quia sacrorum verba pontificum (f. 43 v) sedium suarum per me posuit asti, ³ per me tremit, per me vacillat, per me concutitur orbis terrarum et universi qui habitant in eo. ⁴ Et quis enarrabit potencias meas? ⁵ Michi gremium suum non claudit ecclesia, michi summus pontifex aperit sinus suos et quotiens ad eum accedere voluero totiens in sinu suo colliget ⁶ et dextera illius amplexabitur me. ⁷ Transite igitur ad me omnes qui diligitis nomen meum et beatitudinibus meis implemini. Transite igitur, dico, ne sitis obprobrium homini et abiectio plebis, ⁸ non sequentes eos qui Christi vestigia sunt secuti, argentum suum expendebant non in panibus, laborem suum non in saturitate. ⁹ Accedite, ¹⁰ filii mei, et illuminemini et facies vestre non confundentur. Ego enim sum lux illa que illuminat omnem hominem venientem in hunc mundum, ¹¹ et vos quidem non estis hospites et advene sed estis cives sanctorum, vel nummorum, et domesticorum mei, ¹² quos diu diligere didicistis. Iam non plura loquor vobiscum, ¹³ sed tamen concludo dum explicit sermo meus quia sinam vos. Dabo vobis de rore celi et de pi[n]guedine terre habundanciam ¹⁴ quam vobis conservare dignetur nostra nutrix dulcissima, scilicet avaricia, rerum timidissima dispensatrix.

Heavy with scriptural quotation, this letter suggests that earlier masterpiece of anti-clerical satire, the *Gospel according to Marks of Silver*, ¹⁵ to which it is, however, much inferior. The following, on the other hand, is strongly anti-imperial:

Fr[idericus] XXXVIII., divina ingratitude Remalorum depilator et semper angustus, Ierusalem et Sicilie reus, universis fidelibus suis presentes apices generaliter inspecturis illam quam lupus capre salutem. . . ¹⁶

The letters of Master Terrisio and John of Argussa remind us that the Southern rhetoricians were in relations with the University of Naples as well as with the *Magna Curia*, indeed it was part of the Emperor's purpose that his new university

¹ Canticles, iv. 10.

² Isaiah, lx. 4.

³ Text corrupt.

⁴ Psalms, xxiii. 1.

⁵ Job, xxxviii. 37; Psalms, cv. 2.

⁶ MS. *colligat*.

⁷ Canticles, ii. 6; viii. 3.

⁸ Psalms, xxi. 7.

⁹ MS. *santitate*. Isaiah, lv. 2.

¹⁰ MS. *attendite*. Psalms, xxxiii. 6.

¹¹ John, i. 9.

¹² Ephesians, ii. 19.

¹³ John, xiv. 30.

¹⁴ Genesis, xxvii. 39.

¹⁵ Ed. P. Lehmann, *Parodistische Texte* (Munich, 1923), no. 1 a; for a translation, see Haskins, *The Renaissance of the Twelfth Century*, pp. 185-186.

¹⁶ Printed in full by Hampe in *Neues Archiv*, xxii. 619-620 (1897), from Add. MS. 19906, f. 79 v, of the British Museum, where it is followed by developments of similar themes, in the course of which we find, 'non Fidericus sed fide rarus.'

should train men for an official career.¹ Established in 1224, and renewed in 1234 and 1239, the University of Naples was designed by Frederick to offer such facilities for study to his own subjects as would obviate the necessity of any resort to the Guelfic *studia* of the North, from which they were commanded to return.² While the new university theoretically comprised all the studies which were then current, its strength lay in law and rhetorical composition, the very subjects in which Bologna excelled. To this end the importation of Bolognese masters like the jurist Roffredo of Benevento was almost a necessity; Piero della Vigna is himself said to have studied at Bologna,³ with whose masters he was in correspondence; and Terrisio writes a letter of condolence on the death of the Bolognese professor Bene, who may have been his own teacher.⁴ As Niese has pointed out,⁵ the Latin culture of Frederick's kingdom was in large measure dependent on Northern sources.

A clear example of the transplantation of learning from Bologna to Naples meets us in the field of grammar in the person of Master Walter of Ascoli, author of an etymological dictionary bearing the title *Dedignomium, Summa derivationum*, or *Speculum artis grammaticae*.⁶ One of the four surviving manu-

¹ Huillard-Bréholles, *Historia diplomatica*, ii. 450; iv. 497; v. 493-496; H. Denifle, *Die Universitäten des Mittelalters* (Berlin, 1885), i. 452-456; Hampe, "Zur Gründungsgeschichte der Universität Neapel," in *Heidelberg S. B.*, 1924, no. 10; F. Torraca *et al.*, *Storia della Università di Napoli* (Naples, 1924), ch. 1; E. Besta, "Il primo secolo della scuola giuridica napoletana," in *Nuovi studi medievali*, iii. 7-28; E. M. Meyers, *Iuris interpretes saec. XIII* (Naples, 1924).

² Cf. p. 30, note 2, *supra*.

³ See Guido Bonatti in Salimbene, ed. Holder-Egger, p. 200.

⁴ Huillard-Bréholles, *Pierre de la Vigne*, pp. 300-302; *Archivio storico nap.*, xxxvi. 243-244. For Frederick's invitation of Bene to his court, see R. Davidsohn, *Geschichte von Florenz* (Berlin, 1896-), i. 813. That, as late as the beginning of the fourteenth century, Frederick kept a place in the Bolognese collections of letters, appears from the collection of Pietro de' Boattieri, extracts from which are printed by G. Zaccagnini, *Studio di Bologna*, pp. 169-221; cf. his article on Pietro's letters, in *Studi e memorie per la storia dell'Università di Bologna*, viii. 211-248 (1924).

⁵ *Historische Zeitschrift*, cviii. 513 ff. Cf. E. Monaci, "Da Bologna a Palermo," in L. Morandi, *Antologia della nostra critica letteraria moderna* (8th ed., Città di Castello, 1893), pp. 227-244.

⁶ See my paper on "Magister Gualterius Esculanus," in the *Mélanges Ferdinand Lot* (Paris, 1925), pp. 245-257.

scripts says that 'this work was begun at Bologna when the army of the Pope entered the Terra di Lavoro, when Frederick was Emperor and sojourned in Syria, and was afterward completed at Naples,' so that we clearly have the date 1229. Walter of Ascoli is probably to be identified with the Master G. (Guaterus in one manuscript), professor of grammar at Naples, whose death is commemorated in a highly eulogistic letter of Piero della Vigna to the master's late colleagues. The Laon manuscript of the *Derivations* (ca. 1300) also contains syntactical notes of another Southern grammarian, Master Agnellus de Gaeta, who apparently belongs to the same period.

The Latin poetry of the South in this reign is less abundant and less known than its prose, indeed the whole subject of Latin poetry in thirteenth-century Italy still awaits detailed investigation. If we miss the more ambitious treatises of the close of the preceding century like the *Pantheon* of Geoffrey of Viterbo, the *Liber ad honorem Augusti* of Peter of Eboli, and the *Elegies* of Henry of Settimello,¹ there is still much evidence of interest in Latin verse. Readers of Salimbene will recall his frequent poetical quotations, whether from the Goliardic rhymes of the Primate or from the more serious compositions of his own master Henry of Pisa and others.² The habit of poetical quotation is also found in writers of a more sober turn, such as the jurist Roffredo of Benevento³ and the chronicler Richard of San Germano,⁴ a serious-minded notary who even drops into verse of his own. So the Southern *dictatores* pass easily into poetical *dictamen*, as we see in various pieces interspersed among the letters of Piero della Vigna and Terrisio of Atina.⁵ Piero also has

¹ Cf. the recent edition of A. Marigo (Padua, 1926).

² Salimbene, ed. Holder-Egger, pp. 32, 34, 35, 43, 51, 72, 77, 78, 84-87, 99, 132-133, 135, 137, 144, 157, 182-184, 202, 219, 221, 227, 233, 241, 247-249, 255, 271, 292, 331, 340, 353, 361-362, 418, 430-432, 435, 437, 442-444, 474, 492-494, 512, 514, 539-542, 567, 572-573, 578, 590, 600-603, 605, 628, 644, 647, 651.

³ *Studi medievali*, iii. 237 (1909).

⁴ Ed. A. Gaudenzi (Naples, 1888), pp. 64, 68, 95, 104-107, 135, 147, 148, 151; SS., xix. 324, 329, 338, 341, 343, 357, 373, 374, 378, 385.

⁵ Huillard-Bréholles, *Pierre de la Vigne*, pp. 302, 402-424; *Neues Archiv*, xvii. 507; *Archivio storico nap.*, xxxvi. 244, 250-253; "Documenti inediti del tempo Svevo," pp. 43, 46, in *Atti* of the Palermo Academy, 3d ser., iv.

his traditional place in the Sicilian school of vernacular poets, though, as Monaci has pointed out,¹ the parallelism of theme in Latin is rather to be sought in certain of the imaginative debates in prose to which we have alluded.² On the other hand, the moral maxims of another Southern poet, Schiavo di Bari, were turned into Latin by Jacopo da Benevento, as the contemporary moral treatises of Albertano of Brescia were soon turned into Tuscan.³ In this fluid period both themes and forms pass readily back and forth between Latin and vernacular and from one vernacular to another.

Now that the didactic poems of Schiavo di Bari, printed in the fifteenth century,⁴ have been definitely placed in Frederick's reign⁵ (before 1235), we are probably justified in assigning to the same period their translator, Iacobus de Benevento. In any event, the existence of thirteenth-century copies of the Latin version, or rather adaptation, places Iacobus of Benevento before 1300, and thus distinguishes him from a Dominican friar of the same name who meets us *ca.* 1360.⁶ His relation to Schiavo is made clear in the heading and colophon:

Incipiunt Sclavi de Baro consona dicta
A Beneventano Iacobo per carmina ficta.

Expliciunt Sclavi huius proverbia Bari
Que Beneventanus composuit Iacobus.⁷

¹ *Rendiconti dei Lincei*, 5th ser., v. 45-51 (1896).

² *Supra*, p. 138.

³ G. Bertoni, *Il Duecento* (Milan, [1911]), pp. 228, 290-291. On the Latin works of Albertano, see especially A. Checchini, in *Atti del R. Istituto Veneto*, lxxi. 1423-95 (1912).

⁴ See the account of older editions in the Bologna edition of 1865 (G. Romagnoli, *Scelta di curiosità letterarie*, xi).

⁵ By P. Rajna, in *Biblioteca delle scuole italiane*, 3d ser., anno x, no. 18 (1904). Cf. M. Pelaez, in K. Vollmöller's *Jahresbericht*, viii, 2, pp. 98 f. (1904); G. Bertoni, *Il Duecento*, pp. 185, 282.

⁶ J. Quéatif and J. Échard, *Scriptores Ordinis Praedicatorum* (Paris, 1719-21), i. 648. The earlier Iacobus is also cited with Richard of Venosa by Geremia di Montagnone *ca.* 1290-1300: J. Valentinelli, *Bibliotheca manuscripta ad S. Marci Venetiarum* (Venice, 1868-73), iv. 187; and for the date, Rajna in *Studi di filologia romanza*, v. 193-204 (1891).

⁷ Vatican, MS. Vat. Lat. 2868, ff. 67, 77 v (*ca.* 1300). I have also used the Vatican MS. Reg. Lat. 1596, ff. 21-36 v (*ca.* 1300), and Add. MS. 10415, ff. 1-17, of the British Museum (dated 1399), both of which lack the heading and read *cuius* in the first line of the colophon.

The poems themselves, in the form of a dialogue between father and son, begin and end thus: ¹

Surexisse patet viciorum viscera flammæ
 Urentes hominum que male corda foveant.
 Errant in morum nonnulli cale salubri,
 Sectantes miseri perditionis iter.
 Tu solus rex es nutu qui cuncta gubernas,
 Cuncta creas verbo, gloria lausque Tibi,
 Ergo Tibi virtus regnum decus atque potestas
 Imperiumque salus gloria lausque Tibi.

Iacobus of Benevento is perhaps to be identified with the Iacobus who is the author of an unpublished elegiac comedy of 416 lines *De cerdone*, preserved in certain Italian manuscripts of which the oldest is of the thirteenth century.² Like most such compositions in the Middle Ages, this is in the tradition of Plautus, or rather of the later Pseudo-Plautus, but the setting is mediaeval, though not localized—the priest who seeks through a procuress the beautiful young wife of the workingman (*cerdo*) and outwits the greedy husband who had hoped to extort money by a surprise *flagrante delicto*. It is not clear that Iacobus does more than put a familiar theme into Latin verse—*istud opus metricè descripsit*. His poem is chiefly dialogue, after the opening description of the lady's charms:

Uxor erat quedam cerdonis pauperis olim
 Pulchra nimis, nunquam pulchrior ulla fuit.
 Huius erat facies solis splendentis ad instar.
 Fulgebant oculi sidera clara velut.

¹ Text based upon MS. Reg. Lat. 1596, ff. 21, 36 v. Further extracts, from the defective MS. Gadd. LXXI. inf. 13, are given by A. M. Bandini, *Catalogus codicum Latinorum Bibliothecae Mediceae Laurentianae* (Florence, 1776), iii. 718.

² The oldest MS., not later than 1300, is MS. Aldini 42 of the University of Pavia, ff. 1-5 v, of which I have photographs through the kindness of the Director, Signore Pastorello; the faint and illegible portions of the manuscript have been filled in by a modern hand. I have also used MS. E. 43 sup., ff. 105-114, and MS. O. 63, ff. 194-202, of the Ambrosian (both saec. xv), apparently those cited by Muratori, *Antiquitates*, iii. 916 (1740). There is a copy of the fifteenth century at Munich, Cod. Lat. 443, ff. 152-159, made by Hartmann Schedel in Italy: W. Creizenach, *Geschichte des neueren Dramas* (2d ed., Halle, 1911-23), i. 37. The colophon reads:

Iacobus istud opus metricè descripsit ut omnis
 Qui leget hic discat spernere vile lucrum.
 Deo gratias Amen.

Time and place are more certain in the case of the better known comedy *De Paulino et Polla* which Richard, judge of Venosa, dedicates to the Emperor *ca.* 1228-29.¹ This is a much longer piece of 1132 lines, and the principal theme, the marriage of the two aged Venosans, Paulinus and Polla, is interrupted by moral disquisitions, and by much amusing by-play in the adventures of the judge Fulco, who serves as intermediary in the marriage negotiations only to lose his dinner to a cat, to be set upon by dogs, and to be stoned in a ditch where he has fallen. Still, like all these elegiac pieces, this does not seem to have been designed to be acted, though its popularity is indicated by the survival of at least nine manuscripts.

Frederick also had his place in the large body of prophecy and vision which, in both prose and verse, circulated widely in the Italy of the thirteenth century, under the cover of such names as Merlin, the Sibyls, Abbot Joachim of Fiore, Master John of Toledo, and his own astrologer Michael Scot.² In some of these the Emperor is the great beast of the apocalyptic visions in which the Joachite friars foretold the beginning of the new dispensation of the Holy Spirit in 1260, predictions which claimed to have been dedicated to his father Henry VI³ but whose failure in the case of Frederick was a disappointment and a disillusion to the good Salimbene. Others are of astrological origin, going back to the planetary conjunction of 1186 and reappearing for the year 1229.⁴ Still others, wise after the event, predict specific occurrences of Frederick's reign, like the fate of the Lombard cities after 1236 and the capture of the cardinals in the great sea fight of 1241. So Pope and Emperor, soon after 1245, are represented as exchanging predictions such as the following:⁵

¹ See the list above, p. 130, no. 9.

² O. Holder-Egger, "Italienische Prophetien des 13. Jahrhunderts," in *Neues Archiv*, xv. 141-178; xxx. 321-386, 714 f.; xxxiii. 95-187; H. Grauert, "Meister Johann von Toledo," in *Munich S. B.*, 1901, pp. 111-325; and Hampe, in *Heidelberg S. B.*, 1917, no. 6; 1923, no. 8.

³ Salimbene, p. 360.

⁴ Grauert, pp. 165 ff.

⁵ For the many forms of these verses see *Neues Archiv*, xxx. 335-349, 364, 714; xxxiii. 106-107; Salimbene, p. 362; and for other verses on Innocent IV and Frederick II, *Neues Archiv*, xxxii. 559-604.

Imperator ad papam

Fata monent stelleque docent aviumque volatus:

Totius subito malleus orbis ero.

Roma diu titubans, variis erroribus acta,

Concidet et mundi desinet esse caput.

Papa ad imperatorem

Fama refert, scriptura docet, peccata loquuntur

Quod tibi vita brevis, pena perhennis erit.

Guelf and Ghibelline alike made use of these prophetic materials; under the name of Cardinal John of Toledo they appear in relation to Manfred in 1256,¹ nor do they cease with the Hohenstaufen line.

Finally—to end on a Ghibelline note—Frederick was for a time patron of the international court-poet Henry of Avranches. Eulogist of Pope and Emperor, of the kings of England and France, and of prelates and lay lords in many parts of Christendom, recipient of grants from the English Exchequer which suggest those of the later poets laureate, the career of Henry as a Latin poet is an interesting phase of the intellectual life of the thirteenth century.² In the three poems addressed to Frederick³ he speaks as the supreme poet approaching the supreme king,⁴

Simque poesis ego supremus in orbe professor.

Nor does he hesitate⁵ to liken Frederick, master of Sicily, Rome, Acre, and Aachen, to Guiscard, Caesar, David, and Charlemagne, as he urges the Emperor to codify the civil law as the canon law has just been codified by Gregory IX. Pre-eminent as a peaceful ruler (*Friðe-rich*), Frederick would spare no expense to have the greatest masters at his court, be it an Orpheus or a Plato, a Euclid or a Ptolemy.⁶ The Emperor himself has no superior in any art, liberal or mechanical; not satisfied with the art of

¹ Grauert, pp. 144-146, 319-321.

² See the article of my pupil, J. C. Russell, "Master Henry of Avranches as an International Poet," in *Speculum*, iii. 34-63 (1928).

³ Ed. E. Winkelmann, *Forschungen zur deutschen Geschichte*, xviii. 482-492 (1878).

⁴ P. 490, line 103.

⁵ P. 491, lines 50 ff.

⁶ P. 488, lines 35 ff.

ruling, he seeks the secrets of knowledge, and that not orally but by reading books for himself: ¹

Ingenioque tuo non sufficit ars moderandi
Imperium: quin ipsa scias archana sophie,
Consultis oculo libris, non aure magistris.
Nullus in orbe fuit dominans et in arte magister:
In te percipitur instancia.

The purpose of this survey has been to suggest, not to exhaust, yet enough has been said to show a many-sided literary activity in Latin in the South during Frederick's reign. In all this, poetry has its place as well as prose, products of the imagination as well as the exact sciences, literature as well as law and administration, Latin as well as the vernacular. While local centres appear, especially at Naples, the most active seat of culture seems to have been the *Magna Curia*, where none seems to have been more active than the Emperor himself. Especially at the court must we beware of isolating one kind of writing from another as if we were dealing with a period of intellectual specialization into separate compartments. Many poets of the Sicilian school appear also as notaries, judges, or falconers; Theodore of Antioch cast horoscopes besides drafting Arabic letters; and Piero della Vigna had his part in law as well as in literature. The connexion was particularly close between law and letters, and any study of the Latinity of the period must give due attention to the legal sources. Not only was much of this Latin literature written by lawyers, but the style of Frederick's legislation and official correspondence was deliberately literary. Much of the phraseology was also deliberately Roman, as when the Constitutions of 1231 are issued in the name of *Imperator Fredericus II Romanorum Cesar semper augustus Italicus Siculus Hierosolymitanus Arelatensis felix victor ac triumphator*. How far such titles represented a real attempt on Frederick's part to revive the Roman tradition, it is impossible to say, at least until the matter has been more thoroughly investigated. It is always easy to argue from phraseology,² and always unsafe, most of all when we are dealing

¹ P. 485, lines 34-38.

² Kantorowicz seems to me to exaggerate the importance of such Roman

with so realistic a mind as Frederick's. One thing seems fairly clear, and that brings us back to our special theme, there was no concerted attempt to revive the Latin classics. Naturally the Latinists of the Emperor's court were not ignorant of their Roman predecessors, such as Ovid, but there was not yet the systematic cultivation and imitation of the ancients which we find in Petrarch and Salutati. Whatever one may think of his style, Piero della Vigna was no Ciceronian, nor would the Ciceronians have claimed him.

Nevertheless this Latin culture of the thirteenth century has its place as a connecting link between the renaissance of the twelfth century and the Italian Renaissance. If the continuity is most apparent in the transmission of science and philosophy from the Greek and Arabic, it is also true that the *ars dictaminis* and the fictitious letters, the Goliardic verse and, especially, the Goliardic themes in prose, the elegiac comedy and anti-clerical satire, continued the tradition of the preceding age after these had declined north of the Alps, while the preoccupation with rhetoric and grammar foreshadows the humanism of the fourteenth and fifteenth centuries. In any investigation of the antecedents of the Quattrocento, account must be taken of the continuity of Latin studies in the South.

Finally, it should be noted that, from whatever point of view the matter be approached, one of the marked features of this literature of Frederick's kingdom is its sharply secular character. It is concerned with the world that is, not with the world to come. The absence of works of edification or ecclesiastical history from our list is striking, even if we make full allowance for loss and omission; and the exception proves the rule when the court poet Henry of Avranches writes saints' lives, for he takes such wares to another market. The secularization of literature under Frederick runs parallel to his secularization of the state, and in this respect his court prefigures the intellectual temper as well as the statecraft of the Quattrocento.

phrases and concepts. See also the discussions of A. de Stefano, *L'idea imperiale di Federico II* (Florence, 1927), pp. 64 ff.; and S. Ricci, "Gli 'augustali' di Federico II," in *Studi medievali*, n.s., i. 59-73 (1928). Cf. Franz Kampers, "Die Fortuna Caesarea Kaiser Friedrichs II.," in *Historisches Jahrbuch*, xlviii. 208-229 (1928).

CHAPTER VII

THE *ALCHEMY* ASCRIBED TO MICHAEL SCOT¹

No phase of mediaeval science is more famous than alchemy, and none is so little understood. Mediaeval Europe, it is true, inherited a rich alchemical tradition from the classical world, transmitted partly directly and partly through the intermediary of Arabic writers; but this was only the beginning of Western alchemy. How much of their own the Arabs added in this process of transmission, and how much was due to Latin experimenters of the later Middle Ages, are questions which cannot be answered in the present state of our knowledge. Investigation can only advance as the result of a systematic inventory of Greek treatises on alchemy, which the International Union of Academies has begun;² by monographic studies of individual Arabic authors;³ and by a comprehensive survey of the Latin and vernacular treatises of the later Middle Ages.⁴ Meanwhile any study of individual Latin alchemists must be quite provisional, except so far as it discloses unpublished texts or brings to light new channels of transmission and previously unknown relations between experimenters.

Michael Scot, astrologer of the Emperor Frederick II and translator of Aristotle, Averroës, and Avicenna,⁵ appears in certain mediaeval manuscripts as the author of works on alchemy. In this there is no intrinsic improbability for a man of Scot's occupation and surroundings, and a brief summary of

¹ Except for the opening and concluding paragraphs, this chapter is reprinted substantially unchanged from *Isis*, x, 350-359 (1928).

² *Catalogue des manuscrits alchimiques grecs*, published under the direction of J. Bidez *et al.* (Brussels, 1924-).

³ See, for example, the note and bibliography concerning Jabir, in George Sarton, *Introduction to the History of Science*, i (Baltimore, 1927), pp. 532-533.

⁴ Cf., e.g., Mrs. Dorothea Singer, *Catalogue of Latin and Vernacular Alchemical Manuscripts in Great Britain and Ireland Dating from before the XVI Century*, i (Brussels, 1928), published by the International Union of Academies at the expense of the British Academy.

⁵ Cf. J. Wood Brown, *An Enquiry into the Life and Legend of Michael Scot* (Edinburgh, 1897); *Mediaeval Science*, ch. 13.

alchemical doctrine actually occurs in a chapter of one of his authentic works on astrology written between 1227 and 1235 and thus affording an early example of such material in Latin.¹ This chapter, which sets forth the sulphur-mercury theory of metals and suggests the so-called elixir of life, runs as follows:

Metallum est quedam essentia que dicitur secunde compositionis, cuius species sunt 7, scilicet ferrum, plumbum, stagnum, ramum, cuprum, argentum, et aurum, sciendo quod generantur compositione argenti vivi, sulphuris, et terre. Et secundum unitam materiam eorum quibus componuntur sunt ponderis et coloris. Aurum plus tenet sulphuris quam argenti vivi; argentum tenet plus argenti vivi quam terre et sulphuris; ferrum plus tenet terre quam argenti vivi, etc. Valet quodlibet ad multa ut in compositione sophistica et in aliis virtutibus. Verbi gratia: aurum macinatum valet senibus volentibus vivere sanius et iuniores esse sumptum in cibo, et per eum comparantur multi denarii argenti causa expendendi, fiunt multa monilia, decorantur vasa, et pro eo acquiruntur femine ac multe possessiones. Argentum emit aurum et ex eo multa acquiruntur ut ex auro et fiunt ut denarii, vasa, etc. Stagnum valet ad faciendum vasa et aptandum ferrum laboratum et ramum. Idem dicitur de plumbo ramo etc. Sophisticantur metalla doctrina artis alchimie cum quibusdam additamentis pulverum mediantibus spiritibus quorum species sunt 4, scilicet argentum vivum, sulphur, auripigmentum, et sal ammoniacum. Ex auro cum quibusdam aliis fit plus aurum in apparentia, ex argento et ramo dealbato cum medicina fit plus argentum in apparentia, etc. De argento leviter [fit] azurum. De plumbo leviter fit cerusa. De ramo leviter fit color viridis cum aceto forti et melle. De plumbo et ramo etc. fit aliud metallum: De stagno et ramo fit peltrum cum medicina. Argentum vivum destruit omne metallum ut patet in moneta quam tangit et stagno cuius virgam rumpit tangendo, etc. De plumbo fiunt manubria lime surde quo sonus mortificatur. Argentum vivum interficit edentem et tollit auditum si cadat in aures. Metallorum aqua, ut ferri arsenici vitrioli calcis et virideramini, corodit et frangit calibem. Ex vilibus et muracido ferro fit ferrum andanicum, et ecce mirrabile magnum.²

With respect to the other alchemical treatises ascribed to Scot, caution is imposed upon us by the various false attributions which appear in Scot's name, as well as by the confusion and uncertainty which still reign respecting the Latin literature

¹ Hampe, in *Festgabe W. Goetz* (Leipzig, 1927), pp. 53-66, proposes the date 1227 for this portion of Scot's *Liber particularis*.

² Bodleian Library, MS. Canonici Misc. 555, f. 49 v; Milan, Biblioteca Ambrosiana, MS. L. 92 sup., f. 76 v; Vatican, MS. Rossi ix. 111, f. 41 v. Printed in *Isis*, iv. 271 (1922); *Mediaeval Science*, p. 295, cf. pp. 280, 281.

of alchemy in general. We are still far from having attained a secure footing in this field. Meanwhile this paper proposes to describe more adequately a treatise, or pair of treatises, attributed to Scot which are too long for publication here *in extenso*,¹ and to call attention to the collaboration which they reveal between Italian alchemists and Jewish and Saracen experimenters.

The *Alchemy* ascribed to Michael Scot has reached us in two manuscripts. One is the well known fourteenth-century collection of alchemical works described by Carini when it was in the possession of the Speciale family² and now MS. 4 Qq. A. 10 of the Biblioteca Comunale at Palermo. This rich corpus of Latin alchemy, which also comprises³ a catalogue of the alchemical library of seventy-two treatises belonging to a monk of S. Proculo at Bologna, is a mine of unexplored information; its small format (133 × 94 mm.) indicates that it was meant as a pocket *vade mecum* of the art. The other manuscript, of the early fifteenth century, is in MS. 125 of the library of Corpus Christi College, Oxford.⁴ Neither scribe appears to have understood all that he copied, and the text is in some places hopeless. I have based the following extracts primarily upon the Palermo codex (P) as generally more correct, giving the variants of the Oxford MS. (C) only where they help toward a better reading. Nevertheless, though offering a poorer text, C appears to stand in one respect nearer the original in that Michael Scot there speaks in the first person, while in P he is cited in the third. The text begins:

*Incipit liber magistri Miccaellis Scotti in quo continetur magisterium. Incipit liber magistri Miccaellis Scotti de arte alchimie secundum quem in diversis provinciis cum phylosophis huius artis est operatus. Incipit liber magistri Miccaellis Scotti.*⁵ (I) Dum animadverterem nobilem scientiam

¹ For the *Liber luminis luminum* which Scot is said to have translated, and a *Questio curiosa* which is clearly not his, see Brown, *op. cit.*, ch. 4, and his appendix iii.

² I. Carini, *Sulle scienze occulte nel medio evo* (Palermo, 1872); description repeated in G. Di Marzo, *I MSS. della Biblioteca comunale di Palermo* (1878), iii. 220-243. For many kind offices in securing photographs I am indebted to my friend, Professor C. A. Garufi. The treatise begins on f. 357.

³ F. 370 v.

⁴ Ff. 97-100 v.

⁵ Titles and chapter-headings only in P. The numbering of the chapters is mine. For a third MS. at Caius College, see the note below, p. 159.

apud Latinos penitus denegatam, vidi neminem ad perfectionem posse pervenire propter nimiam confusionem que in libris philosophorum reperitur, extimavi secreta nature intelligentibus revelare incipiens a maiori magisterio ¹ et minori que inveni de transformatione metallorum et de permutatione ipsorum qualiter substantia unius in alteram permuetur. Hoc enim nullis vel paucis erat cognitum. Reperitur autem in libris philosophorum de permutatione et transformatione metallorum, sed ² in eorum philosophia tanta erat obscuritas et oculi hominum caligine obfuscata et corda eorum velamento ignorantie oppilata quod ars alkimie ³ nullis vel paucis posset ⁴ revelari. Multi erant operantes ignorantia et obmittebant in operibus eorum et tempus eorum preteribat in obmissione ⁵ operum. Non potest aliquis sine magistro esse peritus, maxime is qui ignorat illud quod facit, si non est expertus, obmittit in eo. Cum prius enim animadverterem et perquirerem in libris philosophorum ut predictum, volui ipsam obscuritatem meo animo declarare gradiens et perquirens undique et ultramarinis partibus cum viris philosophis et sapientibus latinis iberiis ⁶ harabibus saracenis armenicis theophilis grecis et undique partibus provinciis et linguis, hiis omnibus perquisitis eorum prophetiam ⁷ meo corde notavi.

(II) *Item prologus in quo demonstratur secretum philosophorum.* Creator omnium Deus, qui ex nichilo ⁸ nova condidit universa, ante ⁹ ipsarum generationem de rerum ¹⁰ statu iudicans hoc quidem de universitatis sue tesauris largiri ¹¹ dignatur et singulis distribuit unde omnis creatura eidem exhibet obedientiam, ymaginavit ¹² priusquam fierent cuncta habens eorum notitiam arcano cordis qui suum spiritum cum intellectione ¹³ infundit habite tandem creature. Hic motus existit ut summentes et venientes ¹⁴ scriptorum instructiones huius compositionis industriam quasi quadam compagine sociaret, ut ablata totius alterationis rixa rationale animal positivamque iusticiam ¹⁵ nexu equali adinvicem federaret, universos itaque stolidos tamquam sapientes ad probandos facere contigisset quod nos eruditorum prudentium secreta computanda alkimie artem rationandi secreta nature ¹⁶ mentis arcano revocans, loca fixa ¹⁷ directos gradus ortus occasus permutationes et etiam distillationes et que sunt in eis alterationes admiranda vestigia attendens alchimie statum minus prudentium ¹⁸ deprehendendi ¹⁹ errores. Hac igitur permutatione ratione cogente compendium hoc certissimum ex hiis omnibus prudens invenit antiquitas. Deinde apud omnes filosoficas permutationes ratum arbitror ²⁰ quicquid in hac arte conditum

¹ P, ministerio.

² Om. P.

³ hominum . . . alkimie om. P.

⁴ P, poterant.

⁵ P, admissione, C, amissione.

⁶ P, iberiis. Om. C.

⁷ C, philosophiam.

⁸ P, ex. C, cuncta ex nichilo.

⁹ P, qñ.

¹⁰ P, illarium.

¹¹ P, largitu.

¹² P, ymaginavi.

¹³ P, quod qui suspectum eum cum intelliget terre.

¹⁴ ? C, ut sumat in hac.

¹⁵ Om. P.

¹⁶ P, vere. C, natura.

¹⁷ PC, fixus.

¹⁸ P, prudentem.

¹⁹ P, deprehenditur.

²⁰ P, inter arbitrorum.

subsistendi vicem alkemiarum¹ vel alkemistarum. Est autem difficile exemplar² in libris antiquis philosophorum contineri³ quia⁴ artificium alkimie antiquius forte antiquitas refert. Ego vero⁵ magister Miccael Scottus interpretationem aggredior et tibi magistro Teophilo gayto Saracenorum tecum Tunixe⁶ huius munusculum apporto et secreta nature et verba filosofica que audiui tecum volo alchimiam translatate. Hec est solutio caliditatis et roritatis et balneum aquosum et locus roridus et humidus et vaporosus. Hic est puteus solutionis et fimi acervus, et hic est fons in quo latet anguis cuius venenum omnia corpora interficit, et hoc est secretum omnium secretorum huius scientie, et hec est res quam in libris suis semper occultaverunt phylosophi ne facile possit ab aliquo tantum secretum haberi. Hic enim est⁷ thesaurus rei et in hac arte et in re est omne secretum, et hec est res que erigit de stercore pauperem⁸ et ipsum regibus equiparat et hec est res per quam pater Tholomeus et Hermes dixerunt⁹ se super omnes mundi circulos esse exaltatos.¹⁰ Te ergo, quicumque es, ad quem tantum secretum nature¹¹ pervenerit, per fedus¹² Dei te rogo et coniuro ne ostendas hoc et si ostenderis non aperiis cuiquam in aliquo vel nescio vel stulto aut avaro vel regi vel¹³ potenti, ne socies tibi in hoc opere quempiam malum,¹⁴ prius referens gratias¹⁵ Deo qui hoc te habere concessit operare, tum¹⁶ secretissime perveniens ad illud quod amas et desideras cum auxilio Dei et potentia domini nostri Ihesu Christi qui vivit et regnat per omnia secula seculorum.¹⁷

(III) *Quomodo metalla assimilantur planetis.* Septem sunt planete, scilicet¹⁸ Saturnus Iupiter Mars Sol Venus Mercurius et Luna. Signa planetarum sunt duodecim, scilicet¹⁹ Aries Taurus Gemini Cancer Leo Virgo Libra Scorpio Sagittarius Capricornus Aquarius Pisces.

(IV) *De naturis planetarum et metallorum.* A Sole incipiamus qui est nobilior et dignior omnium planetarum.²⁰ Sol est calidus et siccus in quarto gradu, id est aurum.²¹ Luna est²² frigida et humida in quarto gradu, id est argentum. Iupiter est²³ frigidus et humidus in tertio²⁴ gradu, id est stagnum. Venus est²⁵ frigida et humida in quarto gradu, id est es. Saturnus est²⁶ frigidus et siccus in quarto gradu.²⁷ Mars est calidus et siccus in quarto gradu, id est ferrum. Mercurius est calidus et humidus in quarto gradu, id est argentum vivum.²⁸ Omnia ista sunt

¹ Om. P. ² P, dissimile ex^{tis}.

³ P, continere.

⁴ P, quia ergo. C, et quia,

⁵ Om. P.

⁶ C, magno Theophilo regi Saracenorum de Tunucii.

⁷ P, Huius namque.

⁸ P, paupertatem.

⁹ P, philosophorum Hermes dixit.

¹⁰ P, exaltatum.

¹¹ P, tanti secreti naturam. C, tanta secreta nature pervenerint.

¹² C, fidem.

¹³ Om. P.

¹⁴ C, ne facias tibi in hoc opere copiam malorum.

¹⁵ P, gratiam in.

¹⁶ P, cum eo.

¹⁷ P om. domini . . . seculorum.

¹⁸ P om.

¹⁹ C om. A . . . planetarum.

²⁰ P om. id est aurum, and other such.

²¹ P om.

²² C, quarto.

²³ C om. Saturnus . . . gradu.

²⁴ P om. Mars . . . vivum.

firmata et alligata quatuor elementis et inde retinent suam naturam et proprietatem in calido et sicco in calido et humido in frigido et humido in frigido et sicco.¹

(V) *De maiori magisterio qualiter venus mutatur in solem.* Diximus superius de planetis et signis eorum cuius naturam et proprietatem habent, et in alio libro a nobis translato dissimus de naturis salium quomodo et qualiter in arte alkimie operantur maiori magisterio.² Ad presens qualiter venus in solem mutatur et quomodo et qualiter fit artificialiter et que in hac arte sunt necessaria, tibi, Frater Helya, diligenter et subtiliter enarravi. Accipe sanguinem hominis ruffi et sanguinem bubonis ruffi comburentem croceum vitriolum romanum colofoniam calcum bene pistatum allumen naturale vel³ allumen romanum idem⁴ allumen zuccherinum allumen de Castiglio tartarum rubeum markasidam⁵ auream allumen de Tunixe quod est rubeum et salsum. Omnia ista pista simul in mortario eneo et subtiliter cribra cum panno subtili vel cum straminea.⁶ Postea accipe pulverem istum et in pasta cum urina taxi vel cum succo cucumeris agrestis,⁷ et illa urina sit bene cocta cum sale et optime per filtrum distillata et succus similiter sit distillatus et optime coctus, et cum pulvis inpastatus fuerit ad celestem ignem fac ipsum bene siccare vel ad vehementissimum calorem si non esset estas, et cum siccatus fuerit optime iterum tere ipsum et subtiliter cribra. Postea accipe de pulvere isto et mitte in crucibulo cum venere et statim suffla cum manticello per unam horam et cum liquefactum fuerit prohibice superius de urina vel de suco cucumeris ut dictum⁸ et iterum abde in fortem ignem per horam maximam prohibiendo in crucibulo de comburente satis⁹ et de arsenico rubeo si haberes. Postea extrahe ipsum de crucibulo et si non erit bene coloratum funde iterum¹⁰ cum tuchia et arsenico¹¹ rubeo et parum de predicto¹² pulvere et tribus salibus que operantur in sole donec erit bene coloratum, et iste sol postea poterit substinere omne iudicium. Si vis scire si est perfectus,¹³ pondera ipsum postea¹⁴ funde ipsum fortiter ter vel quater et si tantum erit quantum erat in principio bonus et perfectus erit.

(VI) *De salibus.* Isti sunt sales qui in sole operantur: sal acrum, sal picrum de Poncto,¹⁵ sal nitrum foliatum, sal alkali, sal rubrum,¹⁶ sal nacticum, sal alembrot vel de marrech.¹⁷ Ponas loco unius istorum salium de alumine rubro vel romano.¹⁷ Hoc est documentum magistri Miccaellis Scotti quod ipse super solem fecit et hoc documentum ipse

¹ C om. *Omnia . . . sicco.*

² C, *Dicto de planetis de maiori magisterio et figuris, habita et notitia de salibus vel salium prout in aliquo libro a me translato dixi quomodo de salibus oportet in arte alkimie operari.*

³ C om. *colofoniam . . . vel.*

⁴ item?

⁵ P, *martham.*

⁶ P, *stamina.*

⁷ P, *agresti.*

⁸ P om.

⁹ C, *pulverizato.*

¹⁰ P, *ipsum.*

¹¹ P, *arte.*

¹² P om.

¹³ P, *erit perfectum.*

¹⁴ P, *prius.*

¹⁵ C, *medium de puncto.*

¹⁶ P, *rubeo.*

¹⁷ P om.

docuit Fratrem Heliam et ego vidi Fratri Helie multis vicibus operari et hoc est experimentum a me probatum; verax inveni.¹

Then follows (c. VII) a closely similar *Minus magisterium* for turning mercury into silver, ending, in the Oxford manuscript, 'prout Michael predictus probavi et docui Frater Helya,' and in the Palermo text, 'hoc est documentum magistri Miccaelis Scotti in mercurio.' The next chapter (VIII), on transforming copper into silver, is also parallel but bears no indication of authorship. Then comes a *congelatio* which begins (c. IX), 'Hoc est documentum Baesis Saraceni de Maiorica.' Chapter X contains 'Dealbatio eris perfecta secundum Barbanum Saracenum de Alap qui valde fuit sapiens et peritus in hac arte,' a process for turning copper into silver which ends with this note:

Nota quod dealbatio ista est perfecta et ego paucos inveni qui scirent ipsam facere sed ego vidi ipsam facere Fratri Helie et ego multotiens sum expertus et ipsam omnibus modis veracem inveni.

Chapter XI on making silver out of tin begins and ends as follows:

Hoc est documentum Theodori Saraceni de Tunixe² qui valde sapiens et peritus fuit in hac arte, operatio stangni ad stridorem perfecte tollendum et ipsum perfecte dealbandum. Accipe sucum jusquiami sucum sorbarum sucum malorum granatorum . . .

Nota quod pulvis iste est thesaurus pretiosus in arte. Ipse laborat perfecte in sole et optime constringit mercurium et ultra modum dealbat erem et defendit ipsum a suis superfluitatibus. Apud Sarzanum vidi ipsam facere a quodam Iudeo qui vocabatur magister Iacobus,³ et ipse me docuit, et ego multotiens sum expertus hoc experimentum et ipsum veracem inveni. (Injunction of secrecy.)

Chapter XII describes the making of gold out of lead *secundum Modifar*, or (C) *Medibabaz, Saracenum de Africa*.⁴ Here the attestation in the Palermo codex is in the name of Master G., but the Corpus manuscript has: 'et ego Michael Scotus multotiens sum expertus et semper veracem inveni.'

¹ C, *Et ego magister Michael Scotus sic operatus sum solem et docui te, Frater Elia, operari et tu mihi sepius retulisti te instabiliter multis vicibus operasse.*

² C, *Theodosius Sarracenus de Cunosani.*

³ C, *et ego vidi istam operationem fieri apud Cartanam a magistro Iacobo Iudeo.*

⁴ Translated by Brown, p. 93.

Chapters XIII and XIV deal with gums and *tuchie* respectively. Chapter XV on salts runs as follows:

(XV) *De salibus ad hoc magisterium*. Hec est affinatio salium qui in arte alchimie operantur. Accipe alba rotunda et in vase mundo mitte ubi sit aqua et postea pone ad ignem et fac subtus ignem donec sint dure et postea ipsas extrahe et optime munda ipsas album per se et rubeum per se et mitte album in petia subtili vel straminea et super turbidum calorem mitte et fac ita quod turbidus non ascendat et fac subtus postea bonum ignem. Accipe urinam tassi iuvenis et plenam manum¹ salis communis prohice ibi intus et fac ipsum totum liquefieri. Cum liquefactum fuerit totum prohice super alba rotunda et illud quod cadet prohice post in ea.² Postea stringe petiam et fac aquam exire³ de alba substantia et aquam illam serva et cum aqua ista facta poteris affinare sales tuos qui in luna operantur, et de rubea substantia idem facies et poteris cum ista alia aqua quam extraxeris de rubea substantia affinare sales qui in sole operantur. *Explicit tractatus magistri Michaelis Scoti de alk.*⁴

Here the treatise ends in the Oxford manuscript, while the Palermo codex goes on in another hand with a similar treatise which it ascribes at the end to Michael Scot, who is also mentioned once in the course of the text.⁵ The heading of the first chapter tempts us to identify this with *alio libro a nobis translato . . . de naturis salium* cited above (c. V), but there is relatively little on salts, and the reference is more probably to the *Liber luminis luminum*.⁶ The second work, of approximately the same length as the first, begins as follows:

(I) *De salibus qui operantur ad solem*. Maxime in alkimia invenitur ad convertendum venerem in solem, mercurium in lunam,⁷ martem in lunam.⁷ In permutando ista tria non indiget sublimatione nisi (?) fictio operum. Multi autem solverunt et sublimaverunt et cum difficultate invenerunt, multi autem non solverunt et melius invenerunt. Potest autem quilibet substantia in alteram resolveri, in oleo, aqua, et sale, et per resolutiones. Sublimationes penitus non commendo sed commendo fictiones. Multa corpora vim amittunt⁸ et suam naturam; probatum est; experto crede magistro. Possunt enim corpora resolveri in aqua et oleo. Omnes autem sublimationes expertus fui sed parum utilitatis

¹ P, *plena manu*.

² P om. *post in ea*.

³ P, *ex ere*.

⁴ *Explicit* only in C.

⁵ Folios 360–363, where it ends: . . . ‘simili vase et dimittatur per totam. *Explicit liber magistri Miccaellis Scotti*.’

⁶ Printed in Scot’s name in Brown, appendix iii.

⁷ MS. *luna*.

⁸ MS. *admittunt*.

inveni nisi in lapidibus faciendis et congelandis. Sublimationes que oportune sunt in arte tibi ad intelligentiam enarrabo.

(II) *Capitulum vitri*. Tere et ablue vitrum cum aceto sorbarum et mali granati et aceto rubeo octo vicibus et sicca ad solem. Per activitatem illorum acetorum subtiliantur et depurantur omnes superfluitates partium. Deinde funde in fortissimo crucibulo ferreo et extingue in aqua salis communis et m^a. et ar^a. vii vicibus. Iuro tibi quod in septem vicibus erit calcinatum in calce solis cui non est par per activitatem salium.

The titles of the succeeding chapters are:

(III) *Capitulum vitri*. (IV) *Capitulum vitri quod operatur in solem*. (V) *Capitulum sublimationis mercurii*. (VI) *Capitulum sublimationis*. (VII) *Capitulum distillationis*. (VIII) *Preparatio vitrioli*. (IX) *Capitulum olei albi fixi philosophici*. (X) *De alembrottis*. (XI) *Capitulum de acetis*. (XII) *Capitulum lune*. (XIII) *Capitulum dulcificationis*. (XIV) *Modus purgandi mercurium*. (XV) *Capitulum sublimationis*. (XVI) *Capitulum lune tingende in aurum verum*. (XVII) *De modo pulverizandi aurum sive calcinandi*. (XVIII) *Capitulum grossi de croco ferri*. (XIX) *De modo margassite*. (XX) *Capitulum congelationis saturni*. (XXI) *Congelatio mercurii cum herbis*.

Hermes is cited in chapters VIII and XII, 'Barrecta Saracenus de Africa' in chapter III. In chapter VI we read:

Ego Balac Saracenus de Regis Cibilia Gauco Pogis acc[epi?] coagulationem tibi Fratri Elie transmisi et ipsam multotiens expertus fui, veracem inveni.

Chapter XX directs:

Pone in fornacem quam habuimus a magistro Iohanne Alexandrino designatam (?) que habet duos muros, unum de intus et alium de foris, sicut ego designavi discipulis magistri Ratoaldi Mediolanensis.

In chapter IX occurs the only reference to Michael Scot:

Nota quod Barac Saracenus et magister Boala de Alap philosophi concordati sunt cum magistro Miccaele Scotto quod terra que invenitur in allumine rubeo valde est bona mutando plumbum in optimum solem et lunam, albedinem perfectam dat eri, et optime constringit mercurium.

Chapter XVIII contains what may be a reference to Scot's studies at Toledo:

Illud estanum postea vidi Tollekti et contulit ista micchi et eadem contulit cuidam consanguineo suo seni et ille senex cum eodem crocio operati sunt Tollekti¹ secundum modum predictum.

¹ MS. *Celletti*. No subject for *contulit* appears in what precedes.

What we have here is not a comprehensive or systematic treatise like those ascribed to 'Geber'¹ or the briefer one of Master Simon of Cologne,² nor yet an orderly description of salts and alums like the *Liber luminis luminum*,³ but rather accounts of particular experiments and processes such as Berthelot has indicated under the name of various Italians of the thirteenth century.⁴ Any special study of these processes must be left to those familiar with other contemporary treatises. In general, the materials and methods are reasonably clear. Besides the metals themselves, the authors use earths, alums, glass, fruit acids and vegetable juices, gums, and *tuchie*. They are acquainted with solution, fusion, filtration, sublimation, distillation with the alembic, and calcination. The first treatise makes no use of weights and measures, the second frequently mentions specific quantities, usually pounds.

Besides illustrating the processes of alchemy in the thirteenth century, these two treatises may throw some light on its sources. They give us neither the translation of formal Arabic works nor the independent experiments of Latins working by themselves in the West. On the contrary the Latins are apparently in close contact with Jewish and Saracen experimenters. They watch Master Jacob the Jew at Sarzana; they cite specific experiments, or *documenta*, of Saracens of Africa, Tunis, Majorca, and Aleppo; they note the agreement of Barac and Boala with Michael Scot. Scot has been at Toledo, and if we can trust the preface, he dedicates his *Alchemy* to a Saracen official of Tunis, and has been in contact with alchemists of other lands. All this points to an amount of co-operation and interchange which has not heretofore been noted in the field of alchemy but which can easily be paralleled in other sciences in the same period. One need only recall the Jewish and Mohammedan scholars at the

¹ E. Darmstädter, *Die Alchemie des Geber* (Berlin, 1922; cf. *Isis*, v. 451-455); id., 'Liber Misericordiae Geber,' in *Archiv zur Geschichte der Medizin*, xviii. 181-197 (1925). Cf. p. 148, note 3, *supra*.

² Ed. Sudhoff, in *Archiv für die Geschichte der Naturwissenschaften*, ix. 54-67 (1922).

³ Brown, app. iii. See now the important *De aluminibus et salibus* of Rasis, of which the Latin text is edited by R. Steele in *Isis*, xii. 10-46 (1929).

⁴ *La chimie au moyen âge*, i. 75-78.

court of Frederick II and that emperor's correspondence and questionnaires addressed to the courts of Mohammedan rulers, including Tunis.¹

With this milieu and these connexions the attribution to Frederick's astrologer Michael Scot offers no inconsistency. Furthermore, we know that Scot was familiar with the principles and practices of alchemy; that he had an experimental habit of mind; and that the form "ego Michael Scottus" appears in his authentic writings.² Comparison with his other works is inconclusive, since the *Alchemy* is unsystematic in form and has in any case been reshaped by another hand. Moreover, many false ascriptions gathered about Scot's name and reputation as a wizard, and his contemporary Friar Elias of Cortona, who also appears in the experiments noted above, became the centre of a suspicious alchemical literature;³ so that it may be well to suspend our judgement as to the author until the discovery of further evidence. More important than the matter of individual authorship are the indications of collaboration with Jewish and Saracen experimenters in the West.

It should be added that Scot's relations with learned Jews and Mohammedans were not confined to Italy or the court of Frederick II. His acquaintance with Hebrew and Arabic is attested by Pope Gregory IX,⁴ as well as by his translations from the Arabic, so far as these were his own. The aid of a certain Abuteus the Levite at Toledo in 1217 is acknowledged in the colophon of Scot's version of al-Bitrogi *On the Sphere*,⁵

¹ *Mediaeval Science*, chs. 12, 14, especially pp. 252-254, 290.

² *Mediaeval Science*, p. 272.

³ Lempp, *Frère Elie de Cortone* (Paris, 1901); Golubovich, *Biblioteca bibliografica della Terra Santa* (Quaracchi, 1906), i. 116-117, 223-224; and for relations with Frederick II, A. Haseloff, *Die Bauten der Hohenstaufen in Unteritalien* (Leipzig, 1920), i. 34-37. Of the alchemical works ascribed to Friar Elias two are in MS. 104 of the University of Bologna: f. 138 v, 'Liber Fratris Helye de Asisio Ordinis P. Minorum de secretis nature incipit feliciter. Amicum induit qui iustis amicorum petitionibus condescendit . . .' (de lapide). F. 241 v, 'Incipit magisterium Fratris Helye Ordinis Minorum de elixiris ad album et rubeum. Cum de infrascriptis aquis, distillationibus, et dissolutionibus cum igne et sine igne . . .'

⁴ Auvray, *Registres de Grégoire IX*, no. 61; cf. *Mediaeval Science*, ch. 13.

⁵ *Mediaeval Science*, pp. 273-274.

while Roger Bacon asserts that a Jew named Andrew (possibly the same as Abuteus) performed the greater part of the labour of Scot's translations.¹ This Andrew may plausibly be identified with a Master Andrew, formerly a Jew and now canon of Palencia, whom Pope Honorius III praises for his eminent learning, not only in the seven liberal arts but also in the Hebrew, Chaldee, Arabic, and Latin tongues. The bull, which was granted 15 April, 1225, while Scot was presumably at Rome and in any case high in papal favour, runs as follows:

Magistro Andree canonico Palentino. Ad persone tue dilectionem inducimur et ad exhibendum tibi specialem favorem et gratiam inclinamur. Accepimus enim et venerabilis frater noster Palentinus episcopus exposuit coram nobis quod veterem hominem, cum Iudeus fueris, penitus exuisti et, novo perfectius per misericordiam Salvatoris indutus, dimisso iudaice cecitatis errore, conversus ad Iesum Christum lumen verum sacri unda baptismatis es renatus. Eminentem etiam diceris peditus esse scientia et per hoc, cum in sortem Domini sis assumptus, accessisse ad decorem ecclesie, que consuevit litteratis clericis venustari; septem namque, ut intelliximus, es liberalibus artibus eruditus, plenam habens intelligentiam diversorum idiomatum, ebraici et chaldei, arabici et latini. Verum tumorem habes quandam in gutture cuius occasione, siquando ad locum vel beneficium vocaris alicuius ecclesie, quidam te repellere moliuntur. Cum autem bonum tibi perhibeatur testimonium de conversatione laudabili et honesta, nos eiusdem episcopi supplicationibus incli[nati], devotioni tue de speciali gratia indulgemus ut, occasione huiusmodi non obstante, ad beneficia et dignitates ecclesiasticas, preterquam ad episcopatum, libere valeas, si canonice tibi offerantur, assumi. Nulli ergo nostre conces[sionis] etc. Siquis etc. Datum Laterani xvii. kal. Maii anno nono.²

¹ *Compendium studii*, ed. Brewer, p. 472; cf. *Opus tertium*, ed. Brewer, p. 91.

² Vatican Archives, registers of Honorius III, an. 9, f. 48 v, ep. 267; analysed in Pressutti, *Regesta Honorii Papae III*, no. 5445, to which my attention was called by Dr. Josiah C. Russell. Cf. my paper on "Michael Scot in Spain," in *Homenaje á Bonilla y San Martín* (Madrid, 1927-29); and *Mediaeval Science*, p. xv.

NOTE.—After this chapter was in type, I learned, through the kindness of Mrs. Dorothea Waley Singer, of a third copy of Scot's *Alchemy* at Gonville and Caius College, Cambridge, MS. 181, pp. 19-32 (saec. xiii). The MS. is anonymous in Dr. James's *Catalogue*, but mentions Michael Scot in the body of the treatise, so that the ascription to him is now carried back to the thirteenth century. The text confirms, in general, the other two MSS., but contains additional material of interest. A description by Mrs. Singer may be expected in a forthcoming number of *Isis*.

CHAPTER VIII

CONTACTS WITH BYZANTIUM

To the historian of Western culture in the Middle Ages, the Greek East is a subject of ever increasing importance. Long considered an alien and effete civilization, Byzantium has now come to be regarded as a great reservoir of material from which the less civilized West continued to draw throughout the mediaeval period. The channels of communication between East and West, however, often ran beneath the surface, and many of the contacts were occasional or accidental, so that the process of transmission often eludes us. Again and again our only evidence is a fine piece of craftsmanship, an obviously Byzantine type in art, a sacred relic from Constantinople, or a Latin translation of Greek hagiography or science, with no indication of how these came westward. Under such conditions the story of Byzantine influence must be built up by the slow accumulation of individual detail. The texts which are printed below illustrate the process in three of its more significant aspects, namely the search for relics on the part of pilgrims, the theological disputes between the two churches, and the translation of Greek hagiology and pseudo-science.¹

A CANTERBURY MONK AT CONSTANTINOPLE, c. 1090 ²

The following account of a visit to Jerusalem and Constantinople is found on the last folio of a Rochester lectionary now in the library of the Vatican,³ where the text breaks off abruptly at the foot of the page. The mention of Lanfranc's death fixes the date not long after May 1089. The pilgrim Joseph who is the subject of the narrative seems to have been a person of some importance at Christ Church: ⁴ a monk of this name appears

¹ For further discussion of the translators from the Greek, see my *Mediaeval Science*, chs. 8-11.

² Reprinted from *E. H. R.*, xxv. 293-295 (1910).

³ MS. Vat. Lat. 4951, f. 220 recto, the verso being blank. The MS. is of the twelfth century; see Ehrensberger, *Libri Liturgici Bibliothecae Apostolicae Vaticanae Manuscripti* (Freiburg, 1897), p. 150.

⁴ He is not mentioned in W. G. Searle's *Lists of the Deans, Priors, and Monks of Christ Church, Canterbury* (Cambridge Antiquarian Society, 1902).

next after the prior and before Eadmer in a charter of Anselm for Rochester cathedral, and next after the archdeacons and likewise before Eadmer in a charter of Archbishop Ralph for the same church,¹ so that he was alive as late as 1114. Probably he is the Joseph whose obit is entered under 27 March in the Christ Church necrologies.² The journey to Jerusalem was undertaken with a considerable company, and, if we may infer anything from the silence of the narrative, met with no special difficulties. The friends whom our monk found at Constantinople in the emperor's household were doubtless among those English Varangians who entered the imperial guard after the Norman Conquest and were placed by Alexius in charge of the palace and its treasury.³ The relics of St. Andrew, brought from Achaia in the fourth century, are frequently mentioned in the descriptions of mediaeval Constantinople,⁴ as well as in the notices of the transfer of portions of them to Rome under

¹ Hearne, *Textus Roffensis*, p. 154, no. 93, p. 155, no. 94; *Monasticon*, i. 168. In both cases the abbreviation which follows Eadmer's name in the MS. should doubtless be resolved 'monachis.'

² Cotton MS. Nero C. IX., f. 8 v, printed in Dart, *Cathedral Church of Canterbury*, app., p. xxxv; Lambeth Palace, MS. 20, f. 175 v. Joseph heads the list of monks whose anniversary falls on this day, whereas the other Josephs in the necrologies (Dart, p. xxxvii; Lambeth MS., ff. 195, 196 v, 217) come in each case well down the lists, and hence probably belong to a later age. It is perhaps worth noting that a copy of Isidore of Seville in the British Museum (Royal MS. 5. E. I) was marked by the Rochester librarian 'De clauistro Roffensi per Ioseph monachum.'

³ 'Anglos igitur qui perempto Heraldo rege cum proceribus regni Albiorem reliquerant et a facie Willelmi regis per Pontum in Thraciam navigaverant, Alexius in amicitiam sibi ascivit eisque principale palatium regionesque thesauros palam commendavit, quin etiam eos capitis sui rerumque suarum custodes posuit.' Ordericus, iii. 169; cf. p. 490, and ii. 172. On the English Varangians see Freeman, *Norman Conquest*, iv. 628-632; and especially Vasilievsky, in the *Journal of the Russian Ministry of Public Instruction*, clxxviii. 133-152 (1875). A passage from Gocelin's *Miracula S. Augustini Cantuariensis* does not seem to have been noted in this connexion: 'Primo ex Normannis regnatore Anglie Willelmo Angliam captante, vir honorificus de curia et nutritura B. Augustini cum multis optimatibus patrie profugis Constantinopolim transmigravit, tantamque gratiam apud imperatorem et imperatricem ceterosque potentes obtinuit ut super sapientes milites multamque partem sociorum ducatum acciperet, nec quisquam advenarum ante plurimos annos tali honore profecerit,' *Acta Sanctorum*, May, vi. 410.

⁴ Riant, *Exuviae sacrae Constantinopolitanae*, ii. 211 ff. Two of these accounts are from English sources.

Pelagius II, to Scotland in the eighth century, and to Amalfi after the Fourth Crusade.¹ The cathedral for which Joseph desired the relics was of course Rochester, where Benedictine monks had recently been introduced by Bishop Gundulf, and the presence of the account in a Rochester service-book would imply that he was successful; but while there is evidence of the existence of relics of St. Andrew at Canterbury,² I can find no trace of them in Rochester records.³ Perhaps the conclusion of the text can be supplied from another manuscript.

[T]empore quo Rex Willelmus iunior genti Anglorum preerat et ecclesia Christi Cantuarie morte Lanfranci archiepiscopi desolata fuerat, monachus quidam nomine Ioseph ex eadem ecclesia fuit qui gratia orationum Ierosolimam adiit. Cumque suum ibi desiderium compleret rectoque itinere cum magna sociorum multitudine rediret, rectum iter sociosque deseruit et cum suis tantum quibusdam famulis Constantino-polim secessit. Audierat enim ibi esse thesaurum reliquiarum incomparabilem quarum patrocinii cupiebat se commendare presentem. Cum ergo illuc Deo ducente advenisset et quo in loco thesaurus ille haberetur perquireret, quosdam ibi viros de patria sua suosque amicos repperit qui erant ex familia imperatoris. Hos itaque cum statim recognovisset gaudensque allocutus fuisset, didicit reliquias illas esse in imperatoris capella et quia difficile quisquam illuc ingredi poterat. Imperator enim studiose volens custodire margaritas illas incomparabiles plures illic deputaverat custodes unumque precipue qui ceteris in custodia preesset. At tamen quia predicti monachi amici noti erant ipsi custodi et amici, factum est ut eorum interventu idem custos monachum in capellam introduceret eique maximam reliquiarum partem demonstraret. Cumque has atque illas sibi ostenderet reliquias illeque monachus suppliciter adoraret singulas, contigit ut inter alias ei ostenderet quedam beati Andree apostoli ossa. Cum autem has esse reliquias illius apostoli diceret dicendo affirmaret, monachus, quia semper apostolum dilexerat carius, eius reliquias multo adoravit devotius. Mox etenim ut eas aspexit, terre se devotissime prostravit et inter alia hoc quoque oravit: "Placuisset," inquit, "omnipotenti Deo ut has reliquias nunc tenerem quo in loco eas habere desidero." Quod cum custos ille audisset sed, quia Grecus erat, minime intellexisset, quesivit ab uno ex amicis monachi, qui eorum interpretes erat, quid esset quod monachus ille dixerat. Inter-

¹ For references to these translations, see the Bollandist *Bibliographia hagiographica Latina*, i. 72 f.

² Legg and Hope, *Inventories of Christ Church* (1902), pp. 37, 74, 81, 93.

³ We should expect to find them mentioned in the biography of Bishop Gundulf, who was in great demand on the occasion of translations (*Anglia sacra*, ii. 285).

pres vero, quia votum huiusmodi non audebat manifestare custodi, prius a monacho requisivit an vellet ut hoc indicaret illi, cumque ab eo licentiam accepisset dicendi, tum demum ipsi patefecit custodi quia sic et sic monachus ille optaverit. Ille vero hec audiens monacho per eundem interpretem respondit: "Quid," inquit, "mercedis illi reconpensare velles qui ex eo quod optasti desiderium tuum compleret?" Et ille: "Parum," ait, "pecunie mihi de via remansit multumque vie restat adhuc peragendum mihi. Siquis tamen ex eo quod opto meam compleret voluntatem, ex eadem pecunia tantum sibi darem quanto carere tolerabiliter possem. Ipsas vero reliquias illum deportarem in locum ubi eis celeberrimum persolveretur obsequium. Est enim in patria mea sedes quedam episcopalis in qua fundata est ecclesia quedam in honorem beati Andree apostoli ubi noviter adunata monachorum congregatio Deo devotissime deservit. Ad hanc ergo ecclesiam, si Deus meam dignaretur adimplere voluntatem, aliquas ex apostoli reliquiis deportare cuperem." Tum custos, "Vade," inquit, "et ad hospicium tuum revertere, huncque nostrum interpretem et amicum tuum mihi remitte et per eum tuam mihi voluntatem remandans innotesce. Non enim expedit nobis ut ipse huc revertaris, ne de huiusmodi negotio ani[mad]vertat[ur]."

CHRYSPANUS OF MILAN¹

The theological disputations of the twelfth century are sometimes the occasion of our most definite records of Graeco-Latin relations, indeed the reports of such discussion are often our only evidence of the presence of Western scholars at Constantinople. Thus in 1112, apparently on his return from the Holy Land, we find the archbishop of Milan, Peter Chryspanus, or Grossolanus, disputing concerning the procession of the Holy Spirit with Eustratius of Nicaea and others before the Emperor Alexius, as recorded in various Greek texts and in the Latin *libellus*.² The Greek text of the address to the emperor,

¹ See my *Mediaeval Science*, pp. xiii, 195-197; and *Byzantion*, ii. 234-236 (1926).

² For the speeches of Eustratius and John Phurnes, see A. K. Demetracopoulos, *Bibliotheca ecclesiastica* (Leipzig, 1866), i. 36 ff. (cf. J. Dräseke, in *Byzantinische Zeitschrift*, v. 328-331 (1896)). Cf. F. Chalandon, *Les Comnène*, i (Paris, 1900), p. 263, note; K. Krumbacher, *Geschichte der byzantinischen Literatur*, 2d ed. (Munich, 1897), p. 85; G. Tiraboschi, *Storia della letteratura italiana* (1787), iii. 324-327; J. Hergenröther, *Photius* (Regensburg, 1867-69), iii. 799-803; H. Hurter, *Nomenclator theologiae catholicae*, ii (1906), cols. 12 f. Recent writers on Chryspanus, or Grossolanus, have nothing new on this debate: F. Savio, *Gli antichi vescovi d'Italia*, i (Florence, 1913), pp. 461-472; O. Masnovo, in *Archivio storico lombardo*, xlix. 1-28 (1922).

A sermon of Chryspanus is preserved in the Biblioteca Nazionale at Florence,

found by Baronius (*ad an.* 1116, no. 7, with Latin version) in the Vallicelliana, and published with the same modern Latin version by Allatius (*Graecia orthodoxa*, i. 379-389) and Migne (*Patrologia Graeca*, cxxvii. 911-920=*P. L.*, clxii. 1005-16), is only a fragment containing the early part of the *libellus*. For the latter and longer portion there is an incomplete mediaeval Latin version at Monte Cassino, MS. 220, f. 149, printed in *Bibliotheca Cassinensis*, iv, florilegium, pp. 351-358. These two passages, it appears, supplement each other, and between them furnish the full text, save for an intervening passage of nineteen lines, as we see from the complete Latin text which is preserved in a manuscript of *ca.* 1200 in the University and Public Library of Prague, MS. 233, ff. 50-53 v.¹ Here the version begins and ends:

Munere collatum divino pontificatum
In Mediolano constat quondam Glosulano.
Hic fidei clarę cupiens Grecos revocare
Ad rectam formam scriptisque piis dare normam
Orthodoxorum directo calle virorum,
Numine de Trino quę sint credenda vel Uno
Hunc per sermonem monstravit eis rationem,
Quam qui sectatur bene credulus esse probatur.

Audi et intellige que ego Deo inspirante loquor ad te, sapiens et patiens potens et humilis imperator Alexi . . . Vale, bone imperator. Sit tibi pax et prosperitas. Concedat Flamen Sanctum quod poscimus. Amen.

The translation, after the manner of the twelfth century, is so literal that the Greek text can easily be recovered. The portion of the text which has not yet been printed in one form or the other reads in the Prague MS.:

[nisi alia fortasse dicatur] (f. 50 v). Ego certe agentis nullam adhuc huic similem rationem audiui, quamvis improprie ratio dicatur per quam nihil esse rectum² monstratur. Verum tamen de eadem nuper causa

MS. Conv. soppr. C. I. 2672, ff. 79-80 (saec. xv): 'Sermo sapientissimi Grosolani Mediolanensis episcopi [*sic*] de capitulo monachorum. Locus iste in quo vos . . .'

¹ Also at Florence, Conventi soppressi, I. IV. 21 (San Marco), ff. 95 v-101 v, without verses and incomplete at the end, followed (f. 99 v) by the reply of a Greek. Argelati, *Bibliotheca scriptorum Mediolanensium* (1745), i, 2, p. 712, cites a MS. then at San Salvatore in Bologna.

² The Florence MS. here has *ratum esse*.

loquebar cum quodam sapiente Greco, et audiui aliud ab illo et ego¹ aliud respondi illi. Volo itaque hic ponere illius opinionem et meam respon- (f. 51) sionem, ut bonus imperator bene possit discernere et quid de supradictis debeat iudicare. Grecus dicit: Si Spiritus ita procedit a Filio sicut procedit a Patre, ergo duo sunt principia Pater et Filius, et si duo sunt principia incidimus in heresim illorum qui dicebant unum principium esse eternalium et alterum principium esse temporalium. Ad hæc ego respondi: Sancta et catholica ecclesia dicit Spiritum procedere a Filio sicut a Patre, et dicit Patrem esse principium et Filium esse principium et² Spiritum Sanctum esse principium, nec tamen dicit esse tria vel duo principia sed unum principium, sicut ipsa dicit Patrem Deum et Filium Deum et Spiritum Sanctum Deum nec tamen dicit tres Deos vel duos Deos sed unum Deum. Si autem vis dicere Patrem esse principium Filii et Spiritus Sancti, consentio quidem, verum tamen aliter non intelligo [ipsum esse principium Filii et Spiritus Sancti nisi quia ipse genuit Filium et ab ipso procedit Spiritus . . .].

PASCHAL THE ROMAN³

One of the most curious figures among the Italians at Constantinople in the twelfth century is a certain Paschal the Roman. Unmentioned, so far as I am aware, in the narrative and documentary sources of the period, he can be traced by his own prefaces at the Byzantine capital at various times between 1158 and 1169. These tell us nothing of the occasion which originally took him to Constantinople, nor do they reveal his Western antecedents and associates except for the mention of Henry Dandolo, patriarch of Grado *ca.* 1130–86, who is known to have been in the East and who held a friendly theological dispute with Theorianus.⁴ To Dandolo Paschal dedicated in 1158, or possibly in 1163, his translation, which has reached us in at least twelve manuscripts,⁵ of a dialogue between a Jew

¹ Om. Florence.

² Om. Florence *Filium . . . et.*

³ Based upon *Mediaeval Science*, pp. xiii, xiv, 218–221; and *Byzantion*, ii. 231–234 (1926).

⁴ F. Ughelli, *Italia sacra*, v. 1192–1206; P. F. Kehr, *Italia pontificia*, vii, 2 (1925), pp. 61–70, nos. 113–141; Migne, *Patrologia Graeca*, xciv. 404–409.

⁵ Vatican, MS. Vat. lat. 4265, ff. 197–199 (end of the fourteenth century); MS. 4847, ff. 207–208 (saec. xv); MS. 10068, ff. 151–154 (*Codices*, descr. M. Vattasso and E. Carusi, iv. 453); Vienna, MS. 590, ff. 172 v–176 (saec. xiv); MS. 4406, ff. 233–235 v (saec. xv); Munich, Cod. Lat. 5896, ff. 146–148 v (saec. xiv); Cod. Lat. 7547, ff. 48–51 v (saec. xv); Cod. Lat. 8184, ff. 122–132 v (*ca.* 1400); Cod. Lat. 15133, f. 192 (extract); Cod. Lat. 15956, ff. 116 v–118 v (saec. xv); Erfurt, MS. Q. 124, ff. 135–138 v (saec. xiv; see W. Schum, *Ver-*

and a Christian ascribed to Anastasius of Sinai. The title reads as follows in the Vienna MS. 590, where the date is 1158:

Pascalis de Roma hoc opusculum ¹ disputacionis Iudeorum contra Sanctum Anastasium abbatem ad honorem venerabilis patriarche Graecensis Hainrici Deadoli ² fideliter ac devote transtulit. Anno Domini M^o. c^o. lviii^o.³

The text proper begins and ends as follows:

Interrogavit Iudeus: Cum Deus precepit ligna non esse adoranda, quare vos Christiani ea colitis vel adoratis facientes ex illis cruces et ymagines? Christianus dixit: Dic mihi et tu quare adoratis librum legis cum de pellibus immundis paratus sit . . . Christum verum Deum et hominem confitentes cui gloria et imperium simul est cum Patre et Spiritu Sancto in secula seculorum. Amen.

The treatise consists of a set of extracts, in different order, from the *Disputatio* published by Mai ⁴ and reprinted by Migne.⁵ Krumbacher ⁶ argues that the *Disputatio* cannot be the work of Anastasius of Sinai, as it says that more than eight hundred years have elapsed since the destruction of Jerusalem. On this point we need further manuscript evidence, for the copyists of the Latin translations seem to have sought to bring this statement down to date, and the Greek scribe may have made a similar emendation. Thus in three of the Latin manuscripts we have 1281 years,⁷ in another 1283,⁸ in three others "per MCCC et ultra annos."⁹

zeichniss, p. 383); MS. Q. 151, ff. 238 v-244 v (Schum, p. 416). Formerly at the Escorial (G. Antolín, *Catálogo*, v. 183), and at Basel (B. de Montfaucon, *Bibliotheca nova*, col. 608 d), where the Librarian, Dr. G. Binz, informs me it has disappeared from the MS. (B. III. 1).

¹ MS. *opus secundum*. The correct reading is in most of the other MSS.

² The patriarch's name occurs thus also in Munich, Cod. Lat. 5896, and Vienna, MS. 4406, and in corrupt form in Erfurt, MS. Q. 151; the other MSS. omit it.

³ So also Munich, Codd. Lat. 7547, 8184. MSS. Vat. lat. 4265 and Erfurt Q. 124 have 'M^o.c^o.lxxiii^o.' MS. Vat. lat. 4847: 'm^o.c^o.xlv^o iii^o.' MSS. Vienna 4406, Vat. lat. 10068, and Erfurt, Q. 151: 'm^o cc^o quinquagesimo octavo.' Munich, Cod. Lat. 15956: 'm^o.ccc. 28'; Cod. Lat. 5896: '1240^o.'

⁴ *Scriptorum veterum collectio*, vii. 207.

⁵ *Patrologia Graeca*, lxxxix. 1203-72.

⁶ *Geschichte*, 2d ed., pp. 64 f.

⁷ Vienna, MS. 590, f. 175; MS. 4406, f. 235 v; Munich, Cod. Lat. 15956, f. 118.

⁸ Munich, Cod. Lat. 5896, f. 148.

⁹ Munich, Codd. Lat. 7547, f. 50 v; 8184, f. 129 v; MS. Vat. lat. 4265, f. 198 v.

With this clue in our hands, we shall have no difficulty in recognizing a further bit of Paschal's work in MS. 227 of Balliol College, Oxford, where as P. de Roma he addresses to the same patriarch a version of the life of the Virgin by Epiphanius.¹ The preface reads:

Incipit prologus in ystoria Beate Virginis Marie. Domino H. Dei gratia Dandolo patriarche dignissimo de Grado P. de Roma. Ex diuturna conversatione, carissime pater et domine, in omnibus liberalibus artibus vos optime studuisse, maxime etiam circa divinam scripturam curam² habere percognovi. Nunc, etsi parum in greco studuerim, tamen, ne latentem vitam silentio subducam, honore sancte Dei Romane ecclesie et vestro Christi Genitricis vitam et educationem, sicut a Beato Epiphanio archiepiscopo Cypri descriptam inveni, vobis fideliter transtuli. Quod si in aliquo forte a quibusdam scriptoribus discordat, quoniam non omnia exemplaria in manus omnium incidunt, non est meum tanto viro commendare vel exprobrare sed vestro [et] sancte Romane ecclesie iuditio illam relinquo. Sufficiat itaque mihi in uno verbo dumtaxat vestre sapientie posse placere.

A third and more important translation, of which Paschal the Roman can almost certainly be identified as the author, is the Latin version, made in 1169, of the curious Greek book known as *Kiranides*.³ This strange compend of ancient lore respecting the virtues of animals, stones, and plants is well known in the Greek, from which it has been edited and translated by Mély and Ruelle, but the Latin version has not been specially studied. At least six Latin manuscripts are known, all with the same preface, dated 1169, addressed by Pa. to a certain Master Ka. In one of the manuscripts, namely Palatine

¹ Ff. 146 v-151 v (saec. xiii): 'De domina nostra Dei genitrice semperque virgine Maria multifarii precesserunt olim doctores . . . cui est honor et gloria in secula seculorum amen. Explicit ystoria gloriose semper virginis Marie.' For the Greek text see Migne, *Patrologia Graeca*, cxx. 185-216; for the author, Dräseke, in *Byzantinische Zeitschrift*, iv. 346-362.

² MS. *concuram*.

³ F. de Mély, *Les lapidaires de l'antiquité et du moyen âge*, ii, iii (Paris, 1898-1902). For discussions of these confused texts, see P. Tannery, in *Revue des études grecques*, xvii. 335-349; F. Cumont, in *Bulletin de la Société des Antiquaires de France*, 1919, pp. 175-181; R. Ganszyniec, in *Byzantinisch-Neugriechische Jahrbücher*, i. 353-367, ii. 56-65, 445-452 (1920-21); idem, "Kyraniiden," in Pauly-Wissowa, *Real-Encyclopädie*, xxiii. 127-134 (1924); Thorndike, *History of Magic and Experimental Science*, ii, ch. 46; *Catalogue des manuscrits alchimiques grecs*, i. 135-225; iii. 23-26; v. 73-94.

MS. 1273 of the Vatican, the monogram PASGALIS stands at the head.¹

The translator of Kiranides knows of other works in Greek on the magical virtues of herbs and planets, which he even places before Kiranides itself. Latin versions of these appear in several manuscripts,² sometimes along with Kiranides,³ but with no indication of the translator, who was perhaps also Paschal the Roman.

Meanwhile, in 1165, Paschal the Roman took advantage of his sojourn amid the occult lore of Constantinople to compile a work of his own on dreams under the title *Liber thesauri occulti*. The preface, which vaunts the superiority of the science of dreams over astrology, begins and ends thus: ⁴

*Incipit liber thesauri occulti a Pascale Romano editus
Constantinopolis anno mundi .vi.dc.lxxiiii. anno
Christi .m. c. lxx.*

Tesaurus occultus requiescit in corde sapientis et ideo desiderabilis, set in thesauro occulto et in sapiencia abscondita nulla pene utilitas, ergo revelanda sunt abscondita et patefacienda que sunt occulta. Quare de plurimis ignotis et occultis unius tantummodo elegi tegumentum aptamque revelacionem describere, videlicet sompnii secundum genus et species eius quo res profunda et fere inscrutabilis ad summum patenti ordine distinguatur. Eius namque doctrina philosophis et doctis viris valde necessaria est, ne forte cum exquisiti fuerint muti vel fallaces inveniantur. Nam omnis homo, ut ait Aristoteles in libro De naturis animalium,⁵ a quatuor annis et supra sompnum conspicit atque ad contemplacionem mentis excitatur, et in sompno quidem fit sompnum

¹ The preface in full is printed in my *Mediaeval Science*, pp. 219-220, with an enumeration of five of the manuscripts and a mention of a fragment at Wolfenbüttel. Since then I have discovered a sixth at Florence, in the Laurentian Library, MS. Ashburnham 1520 (1443), f. 1 (saec. xiv), with the date 1169.

² Thorndike, ii. 233 f., who does not mention the edition of the seven herbs in K. N. Sathas, *Documents inédits relatifs à l'histoire de la Grèce au moyen âge*, vii, pp. lxiii-lxvii (from St. Mark's, Cod. gr. iv. 57, suppl.). See H. Haupt, in *Philologus*, xlviii. 371-374; Cumont, in *Revue de philologie*, 1918, pp. 85-108.

³ E. g., Montpellier, MS. 277.

⁴ Bodleian Library, MS. Digby 103, ff. 41-58 v; B.M., Harleian MS. 4025, f. 1 (first book only); Vatican, MS. Vat. lat. 4436, f. 1 (undated); B.N., MS. lat. 16610, ff. 2-24, anonymous, whence the contents have been analysed by Thorndike, *History of Magic and Experimental Science*, ii. 297-300. Part of the preface will be found in my *Mediaeval Science*, p. 218.

⁵ *De animalibus*, iv. 10 (537 b), if indeed this be a direct citation.

et sompnus nichil est aliud quam quies et hebetacio animalium virtutum cum intensione naturalium (f. 41) . . . (f. 43) Collectus autem est liber iste ex divina et humana scriptura tam ex usu experimenti quam ex ratione rei de Latinis et Grecis et Caldaicis et Persis et Pharaonis et Nabugodonosor annalibus in quibus multipharie sompnia eorum sunt exposita. Fuerunt enim Pharao et Nabugodonosor amatores futurorum et quia prophetas non habebant velud gentiles dedit eis Deus per tegumentum sompni futura conspicerere. Nam in sompniis vita et mors, paupertas et divicie, infirmitas et sanitas, tristicia et gaudium, fuga et victoria levius quam in astronomia cognoscuntur, quia perceptio astronomie multiplicior est ac difficilior. Preterea sompniorum usus et cognicio maxime oraculorum vehemens ac aperta demonstracio est, contra eos qui dubitant de angelis et de animabus sanctis utrum sint vel non. Si enim non essent, quomodo eorum oracula vera essent? Nam quecunque anima sancta vel angelus aliquid in sompno dixerit, absque omni interpretatione et scrupulo ita fiet ut predixit angelus vel anima. Non itaque longitudo prohemii nos amplius protrahat nec responsio aliqua impediatur, set omni cura seposita succincte ad thesaurum desiderabilem aperiendum properemus.

Sompnium itaque est figura quam ymaginatur dormiens . . .

The introduction and body of the treatise give a curious jumble of Western and Eastern sources: the dreams mentioned in the Bible, the *Somnium Scipionis* of Macrobius, 'Cato noster,' Aristotle *On Animals*, Hippocrates, the *Viaticum* and *Passionarius* (probably the works respectively of Constantine the African and Gariopontus), and less definite Oriental sources, including perhaps the *Dream-book* of Achmet,¹ of which Leo Tuscus made a Latin version in 1176. None of this appears to have required a knowledge of Arabic writers, but much of the Greek material, including Aristotle *On Animals*,² was not yet accessible in the West, and the whole subject of dreams was as yet more fully developed in the Orient.³

It is quite possible that our list of Paschal's literary undertakings is far from complete, and that other discoveries may be made as the result of further exploration of manuscripts.

¹ *Mediaeval Science*, pp. 216-218. The treatise has now been edited by F. X. Drexler (Leipzig, 1925); cf. *Byzantinische Zeitschrift*, xxvii. 113-116, 171 (1927).

² First translated by Michael Scot from the Arabic shortly before 1220. *Mediaeval Science*, pp. 277 ff. I know of no other Latin citation of the *De animalibus* of so early a date.

³ Cf. Thorndike, ch. 50, and *Byzantinische Zeitschrift*, xxvii. 113 (1927).

CHAPTER IX

THE EARLY *ARTES DICTANDI* IN ITALY

IN the twelfth and thirteenth centuries the art of writing letters occupied a large place in the intellectual life of Western Europe. Maintained in the earlier Middle Ages chiefly as an adjunct to the drafting of legal documents, the study of epistolary composition, *ars dictaminis*, received a fresh stimulus from the revival of literature and learning in the twelfth century, in relation both to the study of law and to the cultivation of Latin letters. In the period immediately preceding, indeed, law had been almost a branch of rhetoric, and the establishment of law as an independent subject of instruction could not wholly break its close connexion with the drafting of official acts; while the greater attention now paid to Latin style was reflected in the freer forms of epistolary composition. Letter-writing, both in the monastic and cathedral schools and in the earliest universities and the contemporary chanceries, deserves the attention of the historian, not only as a phase of the development of rhetorical and literary studies, but also for the light which the collections of letters throw upon the narrative history and especially on the social and intellectual conditions of the epoch.¹

Of course the ancient rhetoricians were not at once abandoned by the teachers and writers of this period. Cicero and Quintilian were still copied and pondered by advanced students, but we shall find them dropping gradually into the background before the more immediately practical manuals of letter-writing. In the desire to be directly useful, these newer treatises concentrated their attention upon the letter and its several parts, and gave little space to general questions of rhetorical form and ornament. They were regularly accompanied by examples and often by elaborate collections of letters public and private, suited to the principal classes in society and the principal occasions of life.

¹ See, for illustration, the discussion of student letters in the first chapter of the present volume.

Sometimes these collections of model letters became detached from the theoretical treatises and circulated independently in the manuscripts. They frequently contained authentic historical documents, as well as letters composed for use or imitation in actual life, while the proper names or initials help us to fix their time and place with a precision which is important in their utilization as specific historical sources, as well as in tracing the development and spread of the *ars dictaminis* throughout this period. The localization of these manuals and collections also helps us to study the intellectual currents flowing back and forth between the several countries of Western Europe. The new rhetoric originates in Italy toward the end of the eleventh century, and in the course of the following century it crosses the Alps and establishes itself most firmly in the region of Orleans, whose *dictatores* come to rival their Bolognese contemporaries in the schools and chanceries of Italy and exercise considerable influence in Germany as well. A survey of the Italian treatises and collections to ca. 1160 will help us to understand the nature and course of this development.¹

I. ALBERICUS OF MONTE CASSINO. So far as we know,² the first exponent of the new *ars dictaminis* was Albericus, a monk of Monte Cassino in the later eleventh century, and Roman cardinal until his

¹ For the literature of the *ars dictaminis*, see above, Chapter I, particularly p. 2, note 2; p. 6, note 2. Of this the works most important for Italy in the twelfth century are the texts published by Rockinger, the excellent summary of the subject in Bresslau, and the sketch in Manacorda. A. Bütow, *Die Entwicklung der mittelalterlichen Briefsteller bis zur Mitte des 12. Jahrhunderts, mit besonderer Berücksichtigung der Theorien der Ars dictandi* (Greifswald diss., 1908), is useful for a portion of the subject; see below, nos. 1-5, 8. The present chapter describes in summary fashion materials which I have collected at various times and which others may wish to examine and compare more fully in relation to the history of mediaeval rhetoric.

² The question of Alberic's predecessors and contemporaries still requires investigation. For the earlier treatises of the grammarian Urso, see C. Morelli, "I trattati di grammatica e retorica del Cod. Casanatense 1086," in *Rendiconti dei Lincei*, 5th series, xix. 287-328 (1910).

One of my students, Mr. Henry M. Willard, calls my attention to a fragment of an early treatise on *dictamen* on a leaf, possibly as early as the eleventh century, of Cod. Lat. 23496 at Munich, f. 11 v, beginning: 'Primo omnium consideranda est materia ordinanda . . .' Mr. Willard is planning to study this fragment specially. This treatise divides the letter into *salutatio*, *proemium*, *narratio*, *probatio*, *conclusio*.

death after 1079.¹ Author of a *Breviarium de dictamine*, Alberic had also a respectable background of classical education, and represented the broader tradition of the older Roman rhetoric and grammar, so that he stands at the turning-point of mediaeval rhetoric. He wrote a work on rhetorical ornament entitled *Flores rhetorici* or *Radii dictaminum*, preserved in three manuscripts,² and a group of short treatises under the general title *De barbarismo et solecismo, tropo et schemate*.³ Moreover rhetoric and grammar did not represent the whole of Alberic's literary activity, as he is credited with saints' lives, sacred verse, sermons, theological and controversial pamphlets, letters, and treatises on dialectic, music, and astronomy.⁴ To him is also ascribed the revival of the Roman *cursus*, in the form which his pupil John of Gaeta, chancellor of the papal see and later (1118-19) Pope Gelasius II, seems to have introduced into the papal curia.⁵

In the field of *dictamen* proper, Alberic's teaching is known to us solely from his *Breviarium*, preserved in two manuscripts, from which it has been published in part;⁶ the *Rationes dictandi* printed in his name has now been placed in the region of Bologna a half-century after his time.⁷ The *Breviarium* contains more grammatical and stylistic matter than is usual in the later books on *dictamen*, so that

¹ Besides the works of Bresslau and Bütow cited above, see L. von Rockinger, "Briefsteller und Formelbücher des elften bis vierzehnten Jahrhunderts," in *Q. E.*, ix (1863-64), pp. xxvi-xxvii, xxxii-xxxiii, 1-46, 54; and cf. my paper on "Albericus Casinensis" in the anniversary *Miscellanea* published at Monte Cassino in 1929, where some unpublished extracts are given from Alberic's rhetorical and grammatical works. As to the lack of evidence respecting the exact date of Alberic's death, see Bütow, pp. 16-17.

² Munich, Cod. Lat. 14784, ff. 44-59 (66 v), entitled *Rethorici flores*; University of Breslau, MS. oct. 11, called *Radii dictaminum*; Copenhagen, MS. Gl. kgl. S. 3545, ff. 1-11, called *Dictaminum radii*. The preface is printed by Rockinger, *Q. E.*, ix. 4-5.

³ Heiligenkreuz, MS. 257, ff. 103-122; Lilienfeld, MS. 98, ff. 91 v-111; MS. formerly at Zwettl, now lost; see T. Gottlieb, *Mittelalterliche Bibliothekscataloge Österreichs*, i (Vienna, 1915), p. 516. See also the fragment at Wolfenbüttel, MS. 2942, f. 118, "De orthographia Alberici."

⁴ Petrus Diaconus, *Chronica*, in SS., vii. 728; in Migne, *P. L.*, clxxiii. 766; *Liber de viris illustribus Casinensis coenobii*, *ibid.*, col. 1033.

⁵ Cf. R. L. Poole, *Lectures on the History of the Papal Chancery* (Cambridge, 1915), pp. 83-88; R. Krohn, *Der päpstliche Kanzler Johannes von Gaëta (Gelasius II.)* (Marburg diss., 1918).

⁶ Munich, Cod. Lat. 14784, ff. 67-104; Cod. Lat. 19411, pp. 115-130; printed in part by Rockinger, *Q. E.*, ix. 29-46. There is also a fragment at Pistoia: Bresslau, p. 248.

⁷ Bütow, p. 17; Bresslau, pp. 249, 251-252; and see below, no. 8.

it is clear that the new epistolography has not yet become sharply differentiated from grammar and the older rhetoric. Thus Alberic here condenses from another of his treatises a discussion of the *vitia orationis*, and includes a *consideratio rithmorum* which takes us far from letter-writing. The new tendency appears in the emphasis upon the forms of salutation and in the invented examples of formal documents, in which both Gregory VII and Henry IV are made to speak in Alberic's style, to the confusion of certain modern critics.¹ The *Breviarium* is obviously not a complete treatise of the art, but is designed to supplement Alberic's oral instruction, being dedicated to two of his pupils, Gundfrid and Guido. Its influence and its relation to subsequent developments are seen in the citations by the Bolognese *dictatores* of the next generation.² Hugh of Bologna declares that while Alberic did not compose specimens of each type of *dictamen*, yet he is rightly considered superior to the others in writing letters and drawing up privileges.³

2. AGINOLFUS. Mentioned by Hugh of Bologna⁴ as a critic of Alberic who introduces rash novelties, no works of Aginolfus have been identified.⁵

3. ALBERT OF SAMARIA, ca. 1111-18. Named with Aginolfus as a critic of Alberic,⁶ Albert is the first teacher of *dictamen* who can be connected with Bologna, where the new art was established by the early years of the twelfth century.⁷ Albert is known to us from two, or rather three, manuscripts. One is a codex of Reinhardsbrunn, now in a private library at Pommersfelden, containing *Precepta*

¹ See Bresslau, p. 249.

² *Q. E.*, ix, 41, 54; cf. Albert of Samaria in *Neues Archiv*, xxxii, 71-81, 717-719. This is probably the *Liber dictaminum et salutationum* of Petrus Diaconus.

³ *Q. E.*, ix, 54.

⁴ *Q. E.*, ix, 53.

⁵ Wattenbach, "Iter Austriacum," in *Archiv für Kunde österreichischer Geschichts-Quellen*, xiv, 36 (1855), conjectures him to be the author of a fragment at Munich, Cod. Lat. 19411. Cf. Bütow, pp. 21-23; *infra*, p. 180.

⁶ Hugh of Bologna, in *Q. E.*, ix, 53.

⁷ Besides Bütow, pp. 21-30, see my paper, here summarized, on "An Early Bolognese Formulary," in the *Mélanges H. Pirenne* (Brussels, 1926), pp. 201-210; and W. Holtzmann, "Eine oberitalienische Ars dictandi und die Briefsammlung des Priors Peter von St. Jean in Sens," *Neues Archiv*, xlvii, 34-52 (1925). Unfortunately I did not see Holtzmann's study until after my paper was in print, but there is very little overlapping, since Holtzmann is concerned chiefly with the French portion of the collection, whereas my interest was primarily in the Bolognese letters. In general, the two papers confirm each other.

dictaminis with a preface, "Adalbertus Samaritanus superno munere monachus Ti. suo discipulo amantissimo," and a set of salutations which are apparently part of the same treatise, whence they have been published with the *Precepta* by Krabbo.¹ Even with this addition the treatise seems incomplete,² for it is disconnected and lacks the introductory classification and the rhetorical discussions which are usual in such works. Its date, if we may judge from the forms of address, is *ca.* 1111-18, in the time of Paschal II, Henry V, and Alexius Comnenus; the proper names point to Northern Italy—Parma, Modena, Reggio, Fermo, Pisa, Lucca—but not specifically to Bologna. The abbot of Monte Cassino and 'Albericus frater'³ seem to have been taken over from Alberic. There is no information respecting the author or his home beyond the Samaritanus or de Samaria which regularly appears. As there is no known place of this name in Italy or adjacent countries, we are probably to assume some reference to the Samaritans of the Bible, apparently in the sense of poor or unfortunate.⁴

This second manuscript⁵ is a codex of the twelfth century in Berlin, Cod. Lat. 181 (Phillipps, 1732), ff. 56 v-73, containing a brief treatise and an appendix of forty-five letters. The treatise begins, without title or author, as follows:

De dictamine tractaturus primum eius diffinitionem ostendere decrevi, quatinus ea cognita convenientius tractare queam. Dictamen est animi conceptio et recta oratione aliquid componere. Dictaminum duo sunt genera principalia. Omne namque dictamen aut est prosaicum aut metri-

¹ MS. 2750; see Krabbo, in *Neues Archiv*, xxxii. 71-81, 717-719.

² Cf. Bütow, p. 30.

³ Cf. Krabbo, p. 75.

⁴ Cf. Tiraboschi, *Storia della letteratura italiana*, iv. 448 (1788), for a similar explanation of Samariensis as applied to Henry of Settimello.

⁵ The third manuscript, which I discovered after printing the article in the *Mélanges Pirenne*, is in the Royal Library at Copenhagen, MS. Gl. kgl. S. 3543 (saec. xii), ff. 19 to 22 verso (cf. Ellen Jørgensen, *Catalogus codicum Latinorum Medii Aevi Bibliothecae Regiae Hafniensis*, p. 300). It corresponds in general to the theoretical part of the Berlin manuscript, of which it offers a rather better text, omitting the section which in the Berlin manuscript covers ff. 59 v to 60 v. There are none of the letters which form the principal interest of the Berlin manuscript; the only letter being an exhortation (1130-37?) by a Pope I. to an Emperor L. (f. 21 v). The name Samaritanus appears but once (f. 21 v), 'ut Samaritanus nobili genere natus,' which corresponds to the Berlin manuscript, f. 61. In place of the 'ut Radulfus docet' of the Berlin codex, f. 60 v, the Copenhagen text has 'ut Iohannes docet' (f. 21), confirming Holtzmann's denial of any connexion with Ralph of Laon (*Neues Archiv*, xli. 37). In this MS. the treatise is likewise anonymous.

cum . . . Sub qua divisione sunt multe alie species . . . quibus omnibus in eo opere quod de metrica arte facere intendimus Deo nobis vitam tribuente tractabimus. Nunc de epistolari prosayco videamus . . .

The treatment is different from the *Precepta*, as the two for the most part cover different ground; where they overlap, as in the etymology of *epistola* and *cola*, the agreement is close but not exact. So there are resemblances without exact duplication in the later Bolognese treatises of Hugh, Henricus Francigena, and Bernard. The author limits himself to the prose epistle, but promises another work, *de metrica arte*. Samaria is mentioned three times for purposes of illustration (ff. 60 v-61r).

On f. 61 v begins the appendix of letters, of which the first six read as follows:

1. Alberto doctori eximio divina sapientia referto morum honestate perspicuo G. scolarium infimus discipularem subiectionem. Tue sapientie ac probitatis fama, renovande¹ doctor, longe lateque diffusa a multis veridicis mihi relata me vehementer monuit ac tibi scribere persuasit et de fonte tue doctrine mellifluos haustus petere. Te namque nobili prosapia ortum, sapientia illuminatum, bonis consuetudinibus adornatum ut audiui in re cognovi. Magistralem igitur benivolentiam ad nostram² accedere urbem humiliter deprecor ac proxima hyeme cum .i. scolaribus vel eo amplius docere, qui dato pignore reddent te³ securum per annuale⁴ spacium tecum permanere et tui laboris ac doctrine debita reddere.

2. Albertus superno munere siquid est G. Cremonensi scolastico carissimo socio et ceteris sociis semper meliora proficere.⁵ Vestre dilectionis litteras, carissimi socii, ovanter accepimus ac benigna mente perlegimus. Quarum petitionem cum magno desiderio adimpleremus si qua ratione convenienter possemus. Pignoribus namque acceptis ac fide data nos per annum Bononie morari ac studium indesinenter regere proposuimus. Eapropter quod postulatis ad nos venire, vobis si libuerit ut carissimos filios suscipiemus et ut dilectos filios docebimus.

3. Dilectissimo socio et precordiali amico L. indissolubile dilectionis vinculum. Amicitia inter nos a cunabulis fere inchoata una cum etate incrementata magnam mihi fiduciam prebet a te necessaria petere et te monet postulata concedere. Quicquid enim usque modo habuimus una communicavimus sed quod fuit dignum dono alter alteri non denegavit. Quamobrem nimium confisus te multimoda prece deosco ut divinarum sententiarum excerptum⁶ quod nuper de Francia detulisti per harum latorem mihi mittere necesses. Vicissim vero meis utaris ut propriis.

4. Necessariorum precipuo O. individue dilectionis unionem. Tue

¹ Read *reverende*?

² MS. *vestram*.

³ MS. *reddente*.

⁴ MS. *annuale*.

⁵ MS. *profilere*.

⁶ MS. *exertum*.

littere per Stephanum mihi delate in exordio me vehementer letificaverunt et in extremo mestificaverunt. Per eas enim tui animi affectionem circa me animadverti et per earum portitorem salutem cognovi; hac de causa ultra quam dici possit letatus sum. Quod autem tue petitioni inpresentiarum satisfacere nequeo omnimodo doleo. Nam librum quem a me petisti¹ iam transacto mense Land. nostro accomodavi amico, sed tuo presente latore meum direxi ut sine dilatione mihi mittat. Quem postquam habuero tibi absque ulla cunctacione mittere curabo.

5. U. Bondinensi archiepiscopo² dilectissimo consanguineo Ada[lbertus]³ Samaritanus superno munere si quid est voluntatis identitatem. Nulla mea precesserunt officia pro quibus tua debeam flagitare beneficia, sed quia caritatis zelo te fervere cognovi qua non modo notis verum etiam ignotis es⁴ subvenire, confidenter tibi meum pando infortunium et tuum depono suffragium. Bononiam kalendis Augusti divino iudicio igne crematam et in eius combustione meam supellectilem me amisisse sciat et vix inde nudus evasi. Itaque tue propinquitatis dilectionem humiliter deprecor quatinus tua copia mea sublevetur inopia, *vel aliter*, tua opulentia aliquantisper mea sustentetur indigentia.

6. A. Samaritano adprime liberalibus disciplinis erudito carnis propinquitate coniuncto U. divina favente clementia Bonidinensis ecclesie archipresbiter licet indignus salutem et eternam in Domino consolationem. Inspectis et superspectis et perlectis tuis litteris ob nimiam tristitiam a lacrimis abstinere nequivimus. Cum enim divina scriptura precipiat etiam extraneis compati, multo magis condolere tibi debemus qui consilium et subsidium in nostris negotiis semper dedisti. Quo circa pro nostra facultate tibi subvenimus et per nostros legatos unum fulcrum et pulvinar linteumque atque duo plaustra honerata unum vino alterum frumento tibi mittere curamus. Quę munuscula humiliter tuam deprecamur dilectionem benigne suscipere sicut de promptuario karitatis tibi studuimus mittere.

These and similar forms from Italy, which I have printed in the *Mélanges Pirenne*,⁵ make up the first seventeen letters of the collection, but those which follow, analysed and studied by Holtzmann, form two groups relating to Northern France in the region of Orleans, Rheims, and Sens, *ca.* 1130-50, at least one of the letters anterior to 1135, the earliest example yet indicated of the transmission of a Bolognese rhetorical collection to France. From the point of view

¹ MS. *petistis*.

² Read *archipresbitero* as in the next letter. Hugo, archpriest of Bondeno (prov. Ferrara), meets us in a papal bull of 1139: Jaffe-Löwenfeld, no. 8049.

³ MS. *Adā*.

⁴ *notus es?*

⁵ Likewise of the time of Pope Paschal II (1099-1118) is a fragment in the B.M., Add. MS. 16896, ff. 103 v-104 (early twelfth century), containing forms of salutation from Italy.

of the *ars dictaminis*, the first part of the collection is the most interesting, the letters of Albert himself, who is specifically mentioned and clearly localized in Bologna in nos. 1, 2, 5, and 6. His dependence upon his predecessors is indicated in nos. 11 and 12, two letters concerning Bonizo as bishop of Sutri (1076-82), evidently taken over from an older collection relating to Central Italy—very possibly from that of Bonizo's contemporary Alberic of Monte Cassino, from whom a salutation has been taken in the *Precepta dictaminis*.

Albert's letters are the earliest so far discovered from the schools of Bologna. Hitherto evidence upon the study of the arts at Bologna in this period has been found only in the *Rationes* of the Bolognese canon Hugh,¹ ca. 1119-24, whereas, if we follow the dates indicated by the *Precepta*, Albert belongs to 1111-18. Albert confirms Hugh in emphasis upon the *trivium* in general and upon *dictamen* in particular, and in the omission of all reference to the study of law. His letters of aid and reproof and requests for the loan of books and writing materials (nos. 4, 7, 8, 13-15) have their parallel in Hugh and in many subsequent collections.² There are also some new points. Nos. 1 and 2 show a negotiation between Bologna and Cremona respecting a teacher of *dictamen*; the schools seem to be free of any connexion with the cathedrals, and in both cases there is a regular annual contract with guarantees for payment on the part of the students.³ More significant is the reference in no. 3 to the *divinarum sententiarum excerptum quod nuper de Francia detulisti*. Not only does this show early communication between Bologna and the schools of Northern France, but it offers evidence particularly of the early spread of the new sentence literature, first worked out by Anselm of Laon and his school and, in the form which it received at the hands of Abaelard, exerting a definite influence upon the method of Gratian and the Bolognese theologians.⁴ Theology is thus seen passing from France to Italy even earlier than the movement of the *ars dictaminis* from Italy to France which is illustrated by the latter part of our collection.

¹ *Q. E.*, ix. 47-94. See H. Fitting, *Die Anfänge der Rechtsschule zu Bologna* (Leipzig, 1888), pp. 80, 105; Rashdall, *Universities of the Middle Ages*, i, p. 111; G. Manacorda, *Storia della scuola in Italia*, i, 1, pp. 202-204, 223; i, 2, pp. 84, 134, 259.

² See Chapter I, *supra*.

³ On cathedral and free schools in mediaeval Italy, see Manacorda, *op. cit.*

⁴ M. Grabmann, *Geschichte der scholastischen Methode* (Freiburg, 1909-11), ii, especially pp. 213-229; J. de Ghellinck, *Le mouvement théologique du XII^e siècle* (Paris, 1914).

4. HENRICUS FRANCIGENA, *Aurea gemma*, ca. 1119-24, Pavia. This work is preserved in the following manuscripts:

- A. Wolfenbüttel, MS. 5620, ff. 66-80.
- B. Leipzig, University Library, MS. 350, ff. 132-146.
- C. B. N., MS. lat. n.a. 610, ff. 27-52 v (saec. xii, incomplete at end).
- D. Bodleian, MS. Laud Misc. 569, ff. 178 v-190 v (early thirteenth century), anonymous and without preface.
- E. University of Erlangen, MS. 396, ff. 47-54 v, with letters from the Rhine valley and especially Schönau in the thirteenth century. See Hans Fischer, *Die lateinischen Pergamenthandschriften der Universitätsbibliothek Erlangen* (Erlangen, 1928), pp. 472-473.

Extracts from A are printed by Rockinger, *Q. E.*, ix. 41-46, 68-71, 90-91, 93-94; cf. H. Fitting, "Ueber neue Beiträge zur Geschichte der Rechtswissenschaft im früheren Mittelalter," in *Zeitschrift der Savigny-Stiftung für Rechtsgeschichte*, vii, romanistische Abtheilung, 2, p. 66 (1886); the same, *Die Anfänge der Rechtsschule zu Bologna* (Leipzig, 1888), pp. 80, 105. See Bütow, pp. 30-43, who uses A and B only and analyses the whole treatise.

The treatise is dedicated to Peter of S. Severino and mentions the author's late master Anselm, a teacher of *dictamen* otherwise unknown. The theoretical part borrows freely from Alberic and Albert of Samaria. The examples centre about Pavia; one is published by Fitting,¹ who seeks to establish from it the importance of Pavia at this time as a centre of legal studies.

MS. C begins:

Petro divino munere Severiane domus .M. sacerdoti glorioso Henricus Francigena amicorum eius amicissimus salutem et petitionem cum humanitatis familiaritate. Crebris vestre dilectionis, dilectissime Petre, fatigatus precibus, honestissime vestre petitioni opere precium duxi nullatenus denegare, quod meam parvitatem dudum scilicet opuscula dictandi componere promississe recolo. Scribam itaque non invitum cum rogatu vestro quem sinceritatis brachiis Deo teste et consciencia mea complector² et in communi utilitate dictantium rationes dictandi prosaice, non tamen ex armariolo nostri ingenii verum etiam diversorum sententias in unum colligendo. . . . Quocienscunque aliquis prosaice sine vicio egregias componere litteras desiderat, opere precium est ut primum

¹ "Ueber neue Beiträge," pp. 66-67; from MS. A.

² MS. *complectri*.

dictandi originem deinde ordinem et materiarum distinctionem perfecte noscat, ut recto tramite vel ordine incedere per altos dictaminis montes leviter valeat. Legat igitur studiosus dictatur [*sic*] hunc libellum qui Aurea gemma intitulatur quem Francigena Henricus ad utilitatem desiderancium dictare Papie composuit. . . .

MS. D, to which I called attention in 1898,¹ begins without dedication but with a preface which holds up for imitation Cicero and the Latin Fathers:²

(F. 178 v) Incipit ecce liber qui dicitur Aurea gemma. Librorum sicut Cantica canticorum per excellentiam liber iste dicitur eo quod maxima utilitas et maior quam in ceteris contineatur in eo. Intendit enim dictandi doctrinam perficere et construere et quodlibet imperfectum formare, Tullium in rethorica arte imitando, Gregorii, Augustini, Ieronimi, atque Ambrosii vestigia in dictaminis varietatibus sequendo: Tullium in faceta locutione et verborum compositione, Gregorium in dulcedine et suavitate, Augustinum in callida et subtilissima argumentatione, Ieronimum in sententiarum pondere, Ambrosium in theorica disputatione. Quanto ergo aurum cunctis metallis preciosius et gemma naturalis ceteris lapidibus clarior et splendidior, tanto liber iste omnium³ auctorum abbreviatio libris invenitur. Aurum itaque et gemma potest dici, sed aurum gemme adiungas et utramque coniunctione qui[d]dam dulcius et pulchrius et decentius idem auream gemmam facias. Vocetur itaque Aurea gemma eo quod ex fontibus doctorum quasi ex auro et gemma sit compositus et informatus. Sociorum assidua pulsatione coactus naturalis et rationis incitamento astrictus aggressus sum rem arduam sed professionis officio non invictam et prosaycas orationes fingere cupientibus satis idoneam, opus difficile sed tamen pro utilitate.

Under *colores rethorici* (f. 183) the doctrine of a Master Peter is exalted.⁴ The salutations (*temp.* Calixtus II, 1119–24, and Henry V, 1106–25) correspond to those in the other manuscripts, but there are signs of retouching in France: W., bishop of Paris (f. 185 v), 'Galliana ecclesia' (f. 187 v), and a church which appears variously as Menensis, Viensis, and Venensis (ff. 187 v, 189). So the student who in the other versions writes from Pavia is here studying law or dialectic at Rheims (f. 187): 'Remensi studio legum—vel dialectice—alacriter et sane die noctuque adherere.'⁵ The treatise breaks off with a letter

¹ *A. H. R.*, iii. 206, note 2.

² Cf. Bütow, p. 43.

³ MS. *omni*.

⁴ 'Magistri Petri doctrine adherere decrevi, cuius est preclara doctrina, cuius perpulchra facundia, cuius tenax memoria, cuius Attica vernat eloquentia, cui tonat Tulliana rethorica, cui canit Romana fistula.' This Peter can hardly be the author of a *summa* at Graz described by Loserth, *Neues Archiv*, xxii. 303.

⁵ See the letter as printed from A by Fitting, "Ueber neue Beiträge," pp. 66–67.

in the name of an Emperor H. to Pope Alexander explaining that the world is composed of four elements and man of four humours.¹

Henricus Francigena seems to be the source of a collection of letters from Pavia in Munich, Cod. Lat. 19411, ff. 65-68 v, where the passage attacking Alberic is verbally reproduced from Henricus: Bütow, p. 22. The Emperor is, however, Frederick and the Pope Alexander (Wattenbach, "Iter," p. 51); there is no accompanying theoretical treatise.

5. HUGH, canon and master of Bologna, *Rationes dictandi prosaice*, ca. 1119-24. Of this work the following manuscripts are known:

- A. Salzburg, St. Peter's, MS. V. 13.
- B. Wolfenbüttel, MS. 5620, ff. 1-4 v, incomplete (in the name of Bishop Benno of Meissen).
- C. Pommersfelden, MS. 2750, ff. 56 v-68 v.
- D. Graz, MS. 1515, ff. 20 v-45 (cf. *Neues Archiv*, xxii. 299).

It was printed from B by B. Pez, *Thesaurus anecdotorum*, vi, 1, coll. 264-278; from A, B, and C by Rockinger, *Q. E.*, ix. 49-94. Cf. Bütow, pp. 44-46.

The treatise is dedicated to D. of Ferrara, imperial judge. The author declares himself a follower of Alberic and criticizes Aginolf and Albert of Samaria, but he draws freely from Albert, and a letter in Albert's name appears among the forms.² The doctrine resembles that of Henricus Francigena, but the forms centre about Bologna and include a student letter which emphasizes philosophy and *dictamen* instead of law. In another letter, not published by Rockinger, the student's literary interests are indicated by a request for a Priscian and an *Argentea lingua*.³

6. WILLELMUS, *Aurea gemma*, ca. 1126. MS. from Weissenau, now in private hands, from which seven letters are printed by K. Höfler,

¹ 'Cum iuxta philosophorum sententiam mundus iste ex quatuor elementis constat, creator ipse mundi providit ut mundus sibi similia in se contineret. Continet enim hominem qui microcosmus dicitur et minor mundus, qui ex quatuor elementis nihilominus constat nec solum ex illis elementis sed etiam ex iiiior humoribus qui similes proprietates sortiti sunt' (f. 190 v).

² *Q. E.*, ix. 84. Contemporary with Hugh of Bologna is a fragment in Vienna, MS. 861, ff. 82 v-84 (saec. xii), apparently the work of a canon of Faenza ('suo preceptoris carissimo Dei nutu sancte Faventine ecclesie canonico'). The salutations are of the time of Calixtus II (1119-24) and Henry V (1106-25), with mention of Faenza, Ravenna, Aquileia, Milan, and Venice; they are followed by *exordia* in the name of Innocent II (1130-43) and Conrad III (1138-52).

³ *Neues Archiv*, xxii. 300 (1897).

"Böhmische Studien," *Archiv für Kunde österreichischer Geschichts-Quellen*, xii. 314-316 (1854); also cited by Wattenbach, "Iter," p. 38. Very little is known of the contents of this collection or of its affinities.¹ Of the letters published by Höfler, four relate to Bologna and three to Milan.

7. A Lombard collection of ca. 1132. Vienna, MS. 2507, ff. 27-63; analysed by Wattenbach, "Iter," pp. 39-51. The letters touch upon imperial relations and local affairs in Lombardy and the Romagna. Some of them are closely related to the *Aurea gemma* of Willelmus ("Iter," pp. 47-49).

Curious light on Franco-Italian relations is thrown by a letter from a student to his father (ff. 43 v-44 v), which shows that the young man is studying at Chartres under Master Bernard, where he hopes to receive a remittance at the hands of pilgrims to Compostela:

Miserere itaque pater, miserere, porrige manum egenti filio, subeat tibi paternus animus, non te deserat pietatis affectus, et per oratores qui veniunt ad Sanctum Iacobum saltim .iiii. marcas argenti Carnotum ubi ego sub disciplina domini magistri Bernhardi dego mihi mittere studeas. In proxima vero Resurrectione sentenciis illis pleniter instructis repatriare studebo.

The father answers:

Tribus namque vicibus per peregrinos qui ad Sanctum Iacobum ibant pecuniam misi. Quarto fratrem tuum Grandulfum ad te direxi, cui querenti et diligenter de te investiganti a multis relatum et confirmatum est te obiisse. Post quod tempora in merore² et luctu erumptosam vitam duxi et nullam consolationem accepi. Sed nuper tuis litteris consolatus et quasi ab inferis resuscitatus et ante divinam faciem deportatus pecuniam quam postulasti per Stephanum fidelissimum vernaculum nostrę domus integram tibi mandare curavi. Quam cicius igitur potest expedire te cura, et si meam faciem ulterius videre desideras cum eo reddere matura.

8. Anonymous *Rationes dictandi*, ca. 1135. Munich, Cod. Lat. 14784, whence the first book was printed by Rockinger, *Q. E.*, ix. 9-28, as a work of Alberic of Monte Cassino. The proper names, however, point to a later date, and to the region of Bologna; later also is the more fully developed doctrine, in which first appear the five parts of a letter: *salutatio*, *captatio benevolentie*, *narratio*, *petitio*, *conclusio*. Thus crystallized, this division passes into the manual of

¹ The *Aurea gemma* at Admont, mentioned in *Archiv*, x. 644 (1851), seems to be a later production: cf. Wattenbach, "Iter," p. 38, note 1.

² MS. *memerore*.

Bernard of Bologna (below, no. 10). See Bütow, pp. 58–59; Bresslau, pp. 251 ff.

9. HERMANNUS (?). A reference of Bernard of Bologna to a teacher 'Her.' leads Kalbfuss (*Quellen und Forschungen*, xvi, 2, p. 11) to identify this master with one mentioned in the Vienna MS. 2507, f. 85 v: 'Incipiunt alię pulcre posiciones magistri Heremanni.' Indeed the word 'alię' might imply his authorship of the *Flores dictaminis* of the same type which precede and are chiefly taken from the Fathers (see below, no. 12). Many of the *posiciones* are from the letters of Ivo of Chartres.

10. BERNARD OF BOLOGNA, *Introductiones prosaici dictaminis*, ca. 1145. The following manuscripts are known:

- A. University of Graz, MS. 1515, ff. 46–127 (saec. xii).
- B. Vatican, MS. Pal. lat. 1801, ff. 1–51 (saec. xii).
- C. Savignano di Romagna, MS. 45 (ca. 1200).
- D. Mantua, MS. A. II. 1, ff. 73–122 (saec. xii).
- E. Poitiers, MS. 213, ff. 1–32 (ca. 1200).
- F. Bruges, MS. 549, ff. 57–105 v (early thirteenth century).
- G. Brussels, MS. 2070, ff. 92–104 (saec. xii).
- H. Vatican, MS. Vat. lat. 9991, ff. 97–104 v (late twelfth century).
- I. Vienna, MS. 246, ff. 51–57 v (saec. xiii).
- K. Anonymous fragment at Copenhagen, MS. Gl. kgl. S. 1905, f. 123 and verso.
- L. Bodleian, MS. Laud Misc. 569, ff. 190 v–191 v, 195 v–196 v.
Brief anonymous extracts adapted to the use of Cistercians.

See H. Kalbfuss, "Eine Bologneser Ars dictandi des XII. Jahrhunderts," in *Quellen und Forschungen aus italienischen Archiven und Bibliotheken*, xvi, 2, pp. 1–35 (1914), based on MS. D, from which he prints numerous letters; and Haskins, "An Italian Master Bernard," in *Essays in History Presented to R. L. Poole* (Oxford, 1927), pp. 211–226, where the manuscripts are analysed and from which the following description is summarized.

These manuscripts show various redactions of a treatise on prose *dictamen* composed by a teacher named Bernard in the Romagna in 1144–45 (MSS. A and B). This was revised in the same region and probably by the author himself between 1145 and 1152 (MSS. C, D, E, F, and G). As early at least as the second redaction the models were provided which meet us in the manuscripts of Savignano (C, ff. 87 v–112) and Mantua (D). The name Bernard indicates that this collection was the work of the author of the treatise, and the

place-names point to the same region, with emphasis upon Bologna in the student letters which are usual in such collections. Before long a copy of the first redaction (MS. B) has taken on elements from the Eastern Alps, and the second redaction early crosses the Alps. By the time of Adrian IV (1154-59) and probably by 1152 this has reached France (MSS. E and F); and by 1159-67, perhaps after passing through France, it has been localized at Cologne (MS. G). Bernard's influence persists as late as MS. I, a greatly modified version made in France in the time of Innocent III. Bernard calls himself *dictaminum professionis minister* and *clericus et Tullianus imitator*, but says nothing of his training unless it be in a reference to Master Hermann (*ante*, no. 9); the *exordia* are dedicated to a certain Henry in a passage which shows that Bernard was attached in some way to the cathedral of Faenza, while other passages connect him with Arezzo. The body of Bernard's manual is based on the *Rationes dictandi* (no. 8), but with further developments and an elaborate treatment of *exordia*.

This treatise in one of its forms, or perhaps the treatise of another Bernard which has been confused with it, also discusses poetical *dictamen*, a topic generally passed over by the writers of the Bolognese school. The similarity of names has caused further confusion with the Bernards who wrote on *dictamen* in France.¹

11. A collection of models relating to Tuscany in the time of Adrian IV (1154-59). Savignano di Romagna, MS. 45, ff. 115-134: 'Mirę commoditatis epistolę a pluribus sapientibus editę incipiunt quę secundum dictatoris industriam multis negotiis accommodantur.'

12. GUIDO OF BOLOGNA, *ca.* 1160. MS. 2507 of the Nationalbibliothek at Vienna (saec. xii) contains, ff. 1-7 v, a brief anonymous *Ars dictandi*, beginning 'Introducendis in arte dictandi dicendum est primo quid sit dictare . . .' Wattenbach pointed out ("Iter Austriacum," p. 39) the mention of Frederick Barbarossa and the anti-Pope Victor on f. 4 v, which fixes the date between 1159 and 1164; but he did not note that Wido is the regular name for the writer in the ordinary salutations. The manuscript of Bernard of Bologna at Savignano, MS. 45 (*ante*, no. 10), has a section which begins (f. 134) 'Incipiunt epistolę secundum rectum et naturalem ordinem a Guidone non inutiliter composite,' from the time of Frederick Barbarossa and the region of Bologna.

¹ Cf. Langlois, "Maître Bernard," *B. E. C.*, liv. 225-250, 792-795 (1893); Haskins, "An Italian Master Bernard," pp. 211-213.

The succeeding treatise in MS. 2507, ff. 7 v-13, is very similar and also anonymous: 'Alius tractatus de dictamine. Epistola grecum nomen est . . .' The example of the master to his pupils runs in the name of 'G. Bononiensis ecclesie canonicus et sacerdos humillimus solo nomine magister' (f. 11 v), and Bologna is mentioned on the following page.

The volume contains other anonymous treatises and collections of the same type and still of the twelfth century, besides the Lombard collection of letters analysed by Wattenbach (ff. 27-63; see *ante*, no. 7) and the *Posiciones* of Master Hermann (f. 85 v; see *ante*, no. 9). Thus, ff. 13-14 v, 'Tractatus qualiter materia debeat ordinari in dictamine. Primum autem omnium . . .' Ff. 14 v-27, *Exordia*, resembling those of Bernard of Bologna. F. 68, 'Qualiter verba venuste ponantur.' F. 68 v, *Flores dictaminis*, chiefly from the Fathers, but with a Bolognese touch in the *Liber Pandectarum* (f. 72).

13. ALBERT OF SAN MARTINO, canon and master of Asti, *Flores dictandi*, ca. 1150. MS. lat. n.a. 610, ff. 1-25 v (saec. xii), where it precedes Henricus Francigena. Dedicated to L., canon of Geneva:

Incipiunt flores dictandi quos Albertus Astensis de Sancto Martino ex multis locis collegit et nonnullis insertis in unum redegit. Venerabili domino et amico suo L. Dei gratia Gebenensi canonico ceterisque sociis eius Al. de Sancto Martino sancti Astensis ecclesie eadem gratia qualiscumque canonicus salutem et Tullianam eloquentiam. Inter cetera Latine eloquentie precipua summum utile arbitror. . . .

Albert is frequently mentioned in the salutations (f. 8 v, 'suis scholaribus') and the models, in which the Pope is Eugene III (1145-53) and the Emperor Conrad III (1138-52). The other proper names (ff. 6 and 7) relate to the region of Asti, namely An[selm], bishop of Asti (1148-67), Ar., bishop 'Saonensis' (of Savona?), Al[fonso], bishop of Pavia (1132-ca. 1145), O., bishop of Alba, M., abbot of Fruttuaria, also (f. 23) the church of Tortona and (f. 24) 'Astenses Albensibus.' Most space is given (ff. 13-20 v) to the twenty-six *modi epistolarum*. The examples of letters (ff. 22-25 v) are comparatively few; the manuscript breaks off abruptly.

14. Anonymous *Precepta prosaici dictaminis secundum Tullium*, ca. 1138-52. B.M., Add. MS. 21173 (saec. xii), ff. 61-73, with an appendix of documents, ff. 74-82, which appears to be distinct. The treatise begins:

Tulliane florem eloquentie prosaici scilicet dictaminis industriam verumne an falsum constet sub leporis volubilitate congrua debere tractari

mecum multotiens cogitavi sollicitus, atque aliquotiens sic meditando reperi plures contextionum series tali super¹ modulo promptula verbositate formatas potius repulsum iri nichilque proprie dignitatis habentes quam ob id pedulcum commovere auditorem. Ceterum cum earum dignitates commodas Tulliana constitutas modestia considero, non modo de omni de quo agitur negotio placabilis et mansuetus redditur auditor, verum etiam ad cuncta petita seu petenda melliflue rationis eloquio plane tractabilis invenitur. . . .

In the salutations the bishop of Asti appears occasionally, 'A. Astensis servus ecclesie,' so that there is some apparent connexion with Albert's treatise (no. 13, above); but the proper names have a somewhat wider range, and apparently centre about Bologna. The Emperor is still C[onrad] (1138-52), but the initials of ecclesiastical dignitaries cannot be identified in their present form; G., also B., prepositus of Lucca; P., also G., archbishop of Milan; R., archbishop of Pisa; V., also C., bishop of Vicenza; D., bishop of Piacenza. On f. 71 v P., bishop of Vercelli, is addressed in a student letter from Bologna.²

15. MASTER A. (?), anonymous Italian treatise, ca. 1138-52, with an appendix of French models of the early thirteenth century. Valenciennes, MS. 483, ff. 90-97 v (early thirteenth century); M. Henry Omont called my attention to the fact that there is a copy of the late thirteenth century made from this manuscript in MS. lat. 8566A, ff. 106-125. The treatise begins, with no heading, as follows:

Ad plenam scientiam dictaminum habendam et si quis expeditus esse voluerit in scientia versificandi, optimum est prenosse quid faciat sermonem gravem, quid prolixum, quid levem, quid ornatum et iocundum reddat sermonem. Ad gravitatem orationis valent emphasis et translatio . . .

There are numerous definitions of rhetorical terms, and a quotation from Cicero, followed by examples of salutations but with little of the usual analysis of letters. There may be a hint of the author's name in the initial A. of the address of pupils to their master, e.g., "A. Dei gratia Tulliani leporis industria prefulgenti." The Emperor is Conrad; there is mention of C., archbishop of Pisa; and under *captatio benivolentie* (f. 92) the text reproduces a portion of the *Rationes dictandi* (*ante*, no. 8) including the passage concerning the alliance of Roger of Apulia with Ancona against Benevento.³

¹ MS. *sup.*

² See Chapter I, p. 18, note 5. Bologna also appears on f. 65 v.

³ *Q. E.*, ix. 25.

To this Italian treatise there is appended a collection of letters relating to Northern France in the time of Innocent III and Philip Augustus, and evidently centring around Orleans. The following example concerning Flemish students of the classics at Orleans is of some general interest: ¹

(F. 96 v, no. 34) Venerabili et discreto viro tali magistro tales scolares salutem et debitam magistro reverentiam. Arbitrari debet cum diligentia vir fidelis et providus qui pro contentionibus sopiendis arbiter est electus. De Flandria provincia recedentes scholas Aurelianas elegimus expetendas ut actores ² nobis cum attenta sollicitudine legerentur. Sed quia magistri graves erant et minus instructos minus sollicitate quam expediret singulis instruebant, frequentare scholas eorum sumus reveriti, semiplenam nostram scientiam attendentes non posse lectionum sufficere gravitati. Talis vero scholaris Ovidianos sub certo precio repromisit nobis secundum possibilitatis exigentiam se lecturum, sed quia promissionem suam non est efficaciter prosecutus, inter nos et dictum scolarem contentio pullulavit propter quod in discretione vestra hic inde nostra sedulitas compromisit. Nos igitur de vestre discretionis abundantia confidentes dilectionem vestram dulciter imploramus quatinus utriusque partis diligenter rationibus intellectis sine dilatione rectum arbitrium proferatis. Questionem debet vero iudicio decidere qui super dubiis electus fuerit iudicare. In commissum ius debet arbiter caute procedere: ne iuris transgressio possit ipsum aliquatenus excusare.

Doubtless this list of Italian manuals and collections of models down to *ca.* 1160 is far from complete. Several teachers of *dictamen* are known, such as Aginolfus, Anselm, Peter, and perhaps Hermann, of whom no writings have been identified, while very likely there were others of whom we lack even the names. Certain of the treatises which have reached us are incomplete, while others cite works which have been lost. In the nature of the case biographical details are exceedingly meagre. The general course of development is, however, fairly clear. The new rhetoric starts, apparently, at Monte Cassino with Alberic; but no other Cassinese master is known, and the next writer who can be identified, Albert of Samaria (1111-18), is associated with Bologna. An effort is made to draw Albert to Cremona, and his younger contemporary, Henricus Francigena, teaches and writes at Pavia; but from the time of Albert and

¹ Cf. Chapter I, p. 26, note 4.

² MS. *astores*.

Hugh (1119-24) there is an unbroken series of Bolognese masters and almost every manual or collection has some relation with Bologna. These treatises are closely connected in content as well as in time and place, for there is much borrowing from predecessors and from contemporaries. Thus Alberic and Albert furnish material to Henricus and Hugh, who in turn have other portions in common, while the *Rationes* (no. 8) influences no. 15 and Bernard, from whom nos. 12 and 14 seem to draw. There is an obvious attempt to keep the several manuals up to date by changing proper names and initials, seen most clearly in the case of Bernard, but this rarely carries beyond 1200, nearly all our manuscripts of this series of treatises being of the twelfth century.

The rhetorical doctrine of these manuals need not long detain us, as it has been analysed at length by Bütow¹ on the basis of nos. 1-5 and 8. The author usually begins by distinguishing three species of *dictamen*, prose, metrical, and rhythmical, and announces that he will confine himself to prose, and especially to epistolary composition. The letter is then defined with its several parts, in accordance with a division which obviously goes back to the sixfold division of *inventio* by the Auctor ad Herennium² but is modified to suit mediaeval practice. After some uncertainties a fivefold classification meets us in the *Rationes dictandi* and persists throughout the Middle Ages: *salutatio*, *captatio benivolentie* (or *exordium*), *narratio*, *petitio*, *conclusio*. The salutation receives most attention down to the time of Bernard, who treats the *exordium* with especial fullness. Abundant examples of each part of a letter are characteristic of all these early writers. The older rhetorical tradition persists till the middle of the century in *Flores dictandi* and citations of Cicero and the Latin Fathers, while on the other hand detached collections of letters and documents become more common as the century advances. Whereas these collections contain many invented letters, they are lacking in those pieces of pure fancy—correspondence between Pyramus and Thisbe, Soul and Body, letters from Venus and the Devil, etc.—which abound in the

¹ *Op. cit.*, pp. 47-73.

² i. 3.

writings of the Orleanese school and the Italian *dictatores* of the thirteenth century.¹

So far as one may judge from the available evidence, the generation following 1160 in Italy was not fruitful in treatises on the *ars dictaminis*. Men were apparently satisfied with copying earlier treatises, like Bernard's, and keeping their collections of models up to date.² At Bologna the gap is noticeable until the turn of the century, when a new school begins there with the more individual and entertaining writings of Buoncompagno and his successors.³ Meanwhile the Beneventan Albert de Mora, vice-chancellor of the Roman curia as early as 1157 and chancellor from 1178 to 1187, when he became Pope as Gregory VIII, had formulated the rules of the papal *cursus*, while his notary, Master Transmundus, also composed a *summa dictaminis*; ⁴ and the reorganization of the chancery by Innocent III forms the starting-point of an important series of papal formularies.⁵

In Germany the Italian rhetoric spread but slowly in the course of the twelfth century, indeed we cannot be certain that the Germany of this period produced any distinct *artes dictaminis*. The needs of German *dictatores* were satisfied by collections of letters without any theoretical introduction, such as have been preserved from Tegernsee and Hildesheim, or as at Reinhardsbrunn accompanied by copies of certain of the Italian treatises.⁶ Some of the early manuscripts of Henricus Francigena and Hugh of Bologna may well have been the work of German

¹ *Supra*, pp. 3-4, 137-139; Haskins, *The Renaissance of the Twelfth Century*, pp. 142-145; Cartellieri, *Ein Donaueschinger Briefsteller*, nos. 62, 65, 216, 227, 228.

² A different type is represented by a Camaldolese monk, Paul, whose treatise is preserved in a manuscript of the twelfth century at Paris, MS. lat. 7517. Here the *ars dictaminis* appears as an adjunct to grammar and versification. Cf. C. Thurot, in *Notices et extraits*, xxii, 2, pp. 24-25.

³ On whom see above, Chapter I, p. 6, note 2.

⁴ N. Valois, "Étude sur le rythme des bulles pontificales," in *B. E. C.*, xlii. 161-198, 257-272 (1881); Delisle, "Notice sur une 'summa dictaminis,'" in *Notices et extraits*, xxxvi, 1, pp. 181-184 (1899); Poole, *Lectures on the History of the Papal Chancery*, ch. iv; Gustav Kleeman, *Papst Gregor VIII.* (Jena diss., 1912).

⁵ Bresslau, ii, 1, pp. 264 ff.; Haskins, "Two Roman Formularies in Philadelphia," in *Miscellanea Francesco Ehrle*, iv. 275-286 (1924).

⁶ Bresslau, pp. 253-254; Bütow, pp. 24-27.

scribes; but the proper names remain Italian, except in the somewhat puzzling instance where letters have been put in the name of Bishop Benno of Meissen (d. 1106).¹ Early in the reign of Frederick Barbarossa, however, two manuscripts of the Italian Bernard (no. 10) contain German names, viz., MS. Pal. 1801 of the Vatican, where in the redaction of 1144-45 we find Regensburg substituted for Milan, and E[berhard] archbishop of Salzburg (1147-64); and MS. 2070 at Brussels, which shows a text of 1145-52 brought to Cologne in the time of Archbishop Reinald (1159-67). An early example of the transplantation of the Italian rhetoric to the Eastern Alps is found in the treatise of a certain Baldwin preserved at Graz (MS. 1515,² ff. 1-20), in which Conrad (1138-52) is Emperor and Eugene (1145-53) Pope, while we find Eberhard archbishop of Salzburg³ (1147-64) and Romanus bishop of Gurk (1131-67). The treatise, which shows Bolognese influence but lacks general interest, is designed for monks and begins as follows:

Incipit prologus Baldwini in librum dictaminum. [D]ilectis in Christo fratribus suis M. et A. tam doctentium quam discentium minimus B. cum omnibus sarcinulis suis se ipsum. Amicorum peticio pretendit que equitati non repugnant amicum retundere non decet si tamen obsequendi facultas amico est. Quare cum vestram petitionem considero me quod petitis estimo debere, sed item in me reversus ac ipsius mei propius ruditatem intuitus et de promisso fere penitentia teneor et susceptæ rei diffidentia confundor. At certe quoniam nobis semel promisso defixus [!] tenere licet, difficile id mee fuerit incurie, si non pro velle tamen pro posse, amicorum petitioni cum ne satis saltem aliquid temptabo facere, ut cum fecero quod potero et de negligentia erga tam desiderabiles amicos excuser et illud sapientis elogium in promissores stultos prolatum declinem, Est qui pre confusione promittit amico et lucratus est eum inimicum gratis.⁴ Quia igitur vestra peticio est ut aliquam per me dictandi noticiam habeatis, eam vobis quam brevius ac lucidius potero tradere curabo. Pretermittis itaque illis dictandis speciebus que claustralem curiositatem minus spectare videntur, rithmo videlicet et metro, de ea tantum specie que prosa dicitur, quod etiam vestra videtur querere peticio, dicamus. Explicit prologus.

¹ No. 5, MS. B; cf. Bütow, pp. 44 f.; also no. 4, MS. E.

² Saec. xii; cf. Loserth, in *Neues Archiv*, xxii. 299.

³ For Salzburg letters of Eberhard's time, see *M.I.O.G.*, xlii. 313-342 (1927).

⁴ Ecclesiasticus, xx. 25.

France, on the other hand, developed a school of her own, or rather two schools, in the course of the twelfth century,¹ and by the following century French influence is felt in Italy and French treatises and models penetrate into Germany.² We have seen that letters of Albert of Samaria reached France soon after 1130,³ and that one of the manuscripts of Henricus Francigena bears signs of having been retouched in the neighbourhood of Rheims,⁴ although Henry's French origin, as seen in his name, cannot be taken as showing any French influence upon the doctrine of his Pavian treatise. Soon after 1150 the treatise of Bernard of Bologna (MSS. E and F) has been fitted out with French proper names.⁵ About the same time we hear, albeit vaguely, of a school of *dictamen* at Tours,⁶ associated in some

¹ L. Delisle, "Les Écoles d'Orléans au douzième et au treizième siècle," in *Annuaire-Bulletin de la Société de l'Histoire de France*, 1869, pp. 139-154, and "Notice sur une 'Summa dictaminis' jadis conservée à Beauvais," in *Notices et extraits*, xxxvi, 1, pp. 171-205 (1899); L. Auvray, "Documents Orléanais du XII^e et du XIII^e siècle," in *Société Archéologique et Historique de l'Orléanais, Mémoires*, xxiii, 393-413 (1892); N. Valois, *De arte scribendi epistolas apud Gallicos mediæ ævi scriptores rhetoresque* (Paris, 1880); Langlois, "Maître Bernard," in *B. E. C.*, liv. 225-250, 792-795 (1893), and "Formulaires de lettres du XII^e, du XIII^e, et du XIV^e siècle," in *Notices et extraits*, xxxiv, pt. 1, pp. 1-32, 305-322 (1891); pt. 2, pp. 1-29 (1895); xxxv, pt. 2, pp. 409-434, 793-830 (1897); A. Luchaire, *Études sur quelques manuscrits de Rome et de Paris* (Paris, 1899), and "Une correspondance inédite des abbés de Saint-Victor sous Louis VII," in *Séances et travaux* of the Académie des Sciences Morales et Politiques, clii, 547-569 (1899).

² Bruno Stehle, *Über ein Hildesheimer Formelbuch* (Sigmaringen, 1878); A. Cartellieri, *Ein Donaueschinger Briefsteller* (Innsbruck, 1898); H. Simonsfeld, "Ueber die Formelsammlung des Rudolf von Tours," *Munich S. B.*, 1898, i. 402-486. Cf. also a group of letters of Frederick I in a manuscript of French origin, now in Prague, described by A. Brackmann, "Dictamina zur Geschichte Friedrich Barbarossas," *Berlin S. B.*, 1927, pp. 379-392.

³ No. 3, p. 176.

⁴ No. 4, MS. D., p. 179.

⁵ No. 10, p. 183.

⁶ The nature and growth of one of these early French collections is illustrated in a manuscript at Bruges, MS. 549, ff. 4 v-32 v, beginning: 'Duplici inaceratur gravamine qui nec parentum presidio nec diviciarum suffragio solidatur. . . .' The collection has no accompanying theoretical treatise, and breaks off abruptly in the manuscript, which is of the end of the twelfth century; it contains numerous forms of letters and many drafts of official documents of ecclesiastical interest. The letters are almost destitute of proper names, the principal exception (f. 9 v) being Jocius, archbishop of Tours (1156-74). The formal documents, several of which are dated 1166, concern St. Martin's of Tours, and also Orleans, Chartres, Paris, and Meaux: Alexander is Pope, Louis king of France, and Henry king of England. In three instances the name is given of

way with Bernard Silvester, and toward the close of the century another school appears in the region of Orleans and more particularly at Meung-sur-Loire. To the Orléanais in the time of Philip Augustus can be traced several treatises and groups of letters; the chief treatise bears the name of Bernard of Meung, and the many letters both real and imaginary are closely associated with the studies of Latin literature which flourished at Orleans and Fleury. In the treatises of this period, the *cursus* now has an assured place.

No manual of the new epistolography yet appears in England, unless England be credited with Peter of Blois, whose brief treatise on *dictamen* (1185-89) seeks to replace both Master Bernard and the school of Tours. Peter also has a brief section on the *cursus*.¹ The treatise of Gervase of Melkley, *De arte versificandi et modo dictandi*,² written in the reign of King John, is concerned almost exclusively with poetical composition, following in the steps of Matthew of Vendôme, Geoffrey of Vinsauf, and especially Bernard Silvester, "a parrot in prose, but in verse a very nightingale."³ Only a brief concluding chapter deals with prose *dictamen*.

In all this the influence of Italy upon France is in general quite clear, but the specific connexions escape us, especially in the second half of the century. Moreover the intellectual currents the *dictator* from whom the draft has been taken over: 'negotium de libertate secundum Magistrum Hilarium Aurelianensem' (f. 27 v); 'scriptum de ordine diaconi vel presbiteri secundum M. R.' (f. 28 v); 'secundum Magistrum Theobaldum' (f. 31 v).

This collection is preceded in the manuscript (ff. 1-4 v) by a curious 'Tractatus primus Iohannis de dictamine,' beginning 'Cum omnis scientia rudis sit et inculta . . .,' in which the author's devotion to Cicero leads him to throw his treatise into the form of a dialogue between Cicero and his son, but cannot keep him at the end from discussing the proper form of salutation to be observed between Frederick Barbarossa and Henry II of England.

¹ Langlois, in *Notices et extraits des manuscrits*, xxxiv, pt. 2, pp. 23-29.

² Balliol College, MS. 263, ff. 153 v-176; MS. 276, ff. 127-153 v. On Gervase cf. F. M. Powicke, *Stephen Langton* (Oxford, 1928), pp. 102 f.

³ 'Scripserunt autem hanc artem Mattheus Vidocinensis plene, Galfridus Vinesa [sic] plenius, plenissime vero Bernardus Silvestris, in prosaico psitacus, in metrico philomena.' Balliol MS. 263, f. 153 v. On such treatises see E. Faral, *Les arts poétiques du XII^e et XIII^e siècle* (Paris, 1924); W. B. Sedgwick, "The Style and Vocabulary of the Latin Arts of Poetry of the Twelfth and Thirteenth Centuries," in *Speculum*, iii. 349-381 (1928).

between the two countries flowed in both directions. Law and *dictamen* spread from Italy to the North, while theology, particularly in the form which it received at the hands of Anselm and Abaelard, affected the canonists as well as the theologians of Italy. Now and then the *dictatores* give us glimpses of this intellectual interchange. Thus in the letters of Albert of Samaria a Bolognese student asks for the loan of a collection of theological sentences recently brought from France, *divinarum sententiarum excerptum quod nuper de Francia detulisti*—interesting evidence of the early spread of the new sentence literature as worked out in the schools of Laon and Paris.¹ In a Lombard collection of *ca.* 1132 we found an Italian student studying at Chartres under Master Bernard, with whose sentences he hopes to become fully imbued by the coming Easter.² In the earliest redaction of the treatise of Bernard of Bologna, *ca.* 1145, a student, apparently of rhetoric, has come from France to Bologna.³ On the other hand, an early letter-book from Chartres shows Pisans studying at Laon under Anselm, who died in 1117.⁴ Such evidence is rare and fragmentary at best; but other material of the sort may reward further investigation.

¹ No. 3, above, letter 3. On the influence of the new sentence literature in Italy, cf. the works of Grabmann and de Ghellinck cited above, no. 3, p. 177, note 4.

² No. 7, *ante*.

³ 'Ex quo divina vos comitante gratia de Gallie partibus Bononiam venistis, quo dilectionis affectu vos viderim et qualiter vobis prompta devotione paruerim ipsis rerum effectibus evidenter, ut arbitror, agnoscitur.' Graz, MS. 1515, f. 97 v; Vatican, MS. Pal. lat. 1801, f. 43.

⁴ *B. E. C.*, 1855, pp. 465-466.

CHAPTER X

ROBERT LE BOUGRE AND THE BEGINNINGS OF THE INQUISITION IN NORTHERN FRANCE ¹

IN few fields of historical investigation has greater advance been made in recent years than in the study of the mediaeval Inquisition. Long a favourite battle-ground of passion and prejudice, occupied chiefly by the controversialist and the pamphleteer, the history of the Inquisition has begun to yield to the methods and spirit of modern historical science; and while the issues which it involved are not always easily separable from those of our own day, there has been a noticeable gain, not only in the critical accumulation of knowledge which reveals the real workings of the Inquisition, but also in the application to it of the historical spirit, which seeks neither to approve nor condemn an institution as such, but only to understand it in the light of its own age. Scholars of many lands have contributed to this result, and it is a source of pride to American students that the work of one of their countrymen, Henry Charles Lea,² still remains, in spite of the active investigations

¹ Revised from the *American Historical Review*, vii. 437-457, 631-652 (1902). I have gone through the subsequent publications on the mediaeval Inquisition without finding reason to modify the conclusions reached in 1902. The intervening years have produced a number of works, particularly by Roman Catholic writers; see Paul Fredericq, "Les récents historiens catholiques de l'Inquisition en France," in *Revue historique*, cix. 307-334 (1912). Of these the most important are the defence of the Inquisition by Mgr. C. Douais, *L'Inquisition: ses origines—sa procédure* (Paris, 1906), and by Jean Guiraud, article "Inquisition," in A. d'Alès, *Dictionnaire apologétique*, 4th ed., ii. 823-890 (Paris, 1915); the excellent brief account by the Abbé E. Vacandard, *L'Inquisition* (Paris, 1906; 5th ed., 1914; English translation by B. L. Conway, New York and London, 1908); Vacandard's article "Inquisition" in A. Vacant and E. Mangenot, *Dictionnaire de théologie catholique*, vii. 2016-68 (1922); J. M. Vidal, *Bullaire de l'Inquisition française au XIV^e siècle* (Paris, 1913); and the elaborate treatise, with a portentous bibliography, of T. de Cauzons, *Histoire de l'Inquisition en France* (Paris, 1909-12, 2 vols.). A. L. Maycock, *The Inquisition* (New York and London, 1927), is a compilation at second hand. Of non-Catholic works, see especially the keen analysis of Ch.-V. Langlois, *L'Inquisition d'après des travaux récents* (Paris, 1902); and the convenient sketch of A. S. Turberville, *Mediaeval Heresy and the Inquisition* (London, 1920).

² *A History of the Inquisition of the Middle Ages* (New York, 1887, 3 vols.).

of the forty-two years which have elapsed since its publication, "the most extensive, the most profound, and the most thorough history of the Inquisition which we possess."¹ At the same time no one would have been slower than its author to claim finality for a work which, with all its enormous research, could not utilize many of the sources now accessible, or profit by the monographic studies upon the Inquisition which in 1887 had scarcely begun to appear; and no one was more ready to welcome the numerous contributions to the history of the Holy Office. Of these more recent studies, some have dealt with the more general aspects of the Inquisition, such as the organization and procedure of its tribunals or their relation to such matters as witchcraft and magic, others have been content to examine more closely its vicissitudes in the various countries of Europe and America.

These general and local investigations can never be wholly independent, and their connexion is peculiarly close in the case of an institution like the Inquisition, which developed slowly and to a certain degree as the result of experiments carried on in different places at the same time, and which it is consequently impossible to understand as a whole without examining the varying conditions which affected it in different countries. This is particularly true of the formative period of the thirteenth century, and it is with this period and with the comparatively

French translation, *Histoire de l'Inquisition au moyen-âge*, ouvrage traduit sur l'exemplaire revu et corrigé de l'auteur par Salomon Reinach (Paris, 1900-02, 3 vols.). German translation by Heinz Wieck and Max Rachel, edited by Joseph Hansen, *Geschichte der Inquisition im Mittelalter* (Bonn, 1905-13, 3 vols.). Italian translation of vol. i by Pia Cremonini, *Storia dell'Inquisizione: fondazione e procedura* (Turin, 1910).

¹ Quoted from F. H. Reusch by Paul Fredericq, in his essay on the "Historiographie de l'Inquisition," prefixed to the French and German translations of Lea's *History of the Inquisition of the Middle Ages* (cf. *Revue historique*, cix. 309 (1912)); repeated by Vacandard, p. vii, who, however, denies finality to Lea's work. Lord Acton declared that the central portions of Lea's work "constitute a sound and solid structure that will survive the censure of all critics." *E. H. R.*, iii. 788 (1888); *The History of Freedom and other Essays* (London, 1907), p. 574. For less favourable Roman Catholic judgements, see Paul Fournier, in *Revue d'histoire ecclésiastique*, iii. 709 (1902); Charles Moeller, *ibid.*, xiv. 721 (1913); Baumgarten's volume cited on p. 261 below; and *Catholic Encyclopedia*, article "Inquisition." On Lea's work in general, see Chapter XII.

neglected field of Northern France that the present chapter is concerned. The necessity for the Inquisition in the North was at all times small, when compared with the grave situation which confronted the church in Languedoc, and its history is naturally of far less importance. Still, the wide prevalence of heresy in the South and the drastic measures which were found necessary for its extermination were to a certain extent abnormal, and are apt to create a false impression of the conditions which called the papal Inquisition into existence. The naturalness, one may almost say the inevitableness, of the rise of the papal Inquisition appears much more clearly if it is studied under more normal conditions, in a field which presented no exceptional difficulties to the operation of the older system. Some account of the early history of the Inquisition in the North will be found in the general work of Lea, in Tanon's useful study of inquisitorial procedure in France,¹ and in Fredericq's admirable history of the Inquisition in the Netherlands.² It is hard gleanings after such scholars as these, yet their somewhat incidental treatment of Northern France and the additional material that is now available upon the subject may perhaps justify a more special study. I shall deal briefly with the period preceding the introduction of the papal Inquisition, and shall then treat more at length the general history and the procedure of the Inquisition under the first papal inquisitor, the Dominican friar Robert le Petit, better known by his popular name of Robert le Bougre.³

¹ L. Tanon, *Histoire des Tribunaux de l'Inquisition en France* (Paris, 1893).

² *Corpus documentorum Inquisitionis Haereticæ Pravitatis Neerlandicae*. Ghent and the Hague, 1889-1906, 5 vols. *Geschiedenis der Inquisitie in de Nederlanden*. *Ibid.*, 1892-97, 2 vols. Many of the documents in the *Corpus* were already in print, but I shall frequently refer to this collection because of its convenience.

³ The only special study of Friar Robert is the monograph of Jules Frederichs, a pupil of Paul Fredericq, entitled *Robert le Bougre, premier Inquisiteur Général en France*, and published as the sixth fascicle of the *Recueil de travaux* of the Faculty of Philosophy of the University of Ghent (32 pp., Ghent, 1892). So far as it goes, this is a very creditable piece of work, being particularly useful for events in Flanders and the adjacent regions, but its author overlooked several important sources of information. The accounts in Fredericq (*Geschiedenis*, i. 42-59) and Tanon (pp. 113-117) accept Frederichs' results. Other brief accounts are in Lea, ii. 113-117 (with some corrections and additions in the French and German translations); E. Berger, *Blanche de Castille* (Paris,

The sources for the history of the Inquisition in Northern France, when compared with the materials available for Languedoc, are disappointingly meagre. There was here far less to record than in the South and far less system in the records, and even the material that once existed has largely disappeared in the destruction of one kind and another which has wrought such sad havoc with the French archives of the thirteenth century. There is for the North no Collection Doat, with its rich mass of copies from ecclesiastical archives; there are no registers of proceedings like those of the tribunals of Carcassonne and Pamiers or of the inquisitor Bernard de Caux; there are no manuals of procedure like the famous *Practica* of Bernard Gui.¹ The most that careful search can collect for the North consists of some scattered local charters, a fair number of papal bulls, a few edifying examples garnered into the pious collection's of Caesar of Heisterbach,² Étienne de Bourbon,³ and Thomas de Cantimpré,⁴ and the narratives of contemporary chroniclers, whose accounts of local matters are often of considerable value. Of 1895), pp. 294-296; Tillemont, *Vie de Saint-Louis*, ii. 289-293 (remarkably good for its time); and M. D. Chapotin, *Histoire des Dominicains de la province de France* (Rouen, 1898), pp. 216-226. Chapotin's recital is incomplete and careless and contains little that is new. The account in Paul Beuzart, *Les hérésies pendant le moyen âge et la réforme dans la région de Douai, d'Arras, et au pays de l'Alleeu* (Paris, 1912), does not go beyond the material in Frederichs. My articles in the *A. H. R.* were also overlooked by E. Chénon, "L'hérésie à La Charité-sur-Loire et les débuts de l'Inquisition monastique dans la France du nord au XIII^e siècle," in *Nouvelle revue historique de droit*, xli. 299-345 (1917). See Fredericq, *Corpus*, iii, p. xviii (1906).

¹ On these see Charles Molinier, *L'Inquisition dans le Midi de la France* (Paris, 1880), and *Études sur quelques manuscrits des bibliothèques d'Italie concernant l'Inquisition et les croyances hérétiques* (Paris, 1888: reprinted from *Archives des missions scientifiques et littéraires*, 3d series, xiv); C. Douais, "Les sources de l'histoire de l'Inquisition dans le Midi de la France," in the *Revue des questions historiques*, xxx. 383-459 (1881), and *Documents pour servir à l'histoire de l'Inquisition dans le Languedoc* (Paris, 1900, 2 vols.).

² *Caesarii Heisterbacensis . . . Dialogus miraculorum*, ed. Strange (Cologne, 1851); *Die Fragmente der Libri VIII Miraculorum*, ed. A. Meister (Rome, 1901).

³ *Anecdotes historiques, légendes, et apologues tirés du recueil inédit d'Étienne de Bourbon*, ed. Lecoy de la Marche (Paris, 1877). Étienne was himself an inquisitor. On such collections of *exempla*, see *supra*, Chapter II.

⁴ *Bonum universale de apibus* (Douai, 1627). Cf. E. Berger, *Thomae Cantimpratensis Bonum universale de apibus quid illustrandis saeculi decimi tertii moribus conferat* (Paris, 1895), and A. Kaufmann, *Thomas von Chantimpré* (Cologne, 1899).

the records of the royal administration under St. Louis, which must once have contained important information regarding the persecution of heresy, nothing remains touching the Inquisition save some scattered notices in the royal accounts; the administrative correspondence is gone, even the general ordinance issued by St. Louis for the punishment of heresy in the North has disappeared.¹ Fortunately the papal documents of the thirteenth century are better preserved, thanks to the numerous originals in local depositories and to the registers so carefully kept by the papal chancery from the accession of Innocent III; and it is from these more than from any other single source that we derive the greater part of our knowledge of the early history of the papal Inquisition and—so scarce are local documents relating to heresy—much of our knowledge of the later history of the episcopal Inquisition as well. Still the registers, whose publication in recent years has been of the greatest assistance to all students of the thirteenth century,² sometimes fail us when we most need their aid; all bulls were not registered, and many important acts of the papal administration were issued through legates or subordinate bureaux whose records have for the most part disappeared.³

¹ Fredericq, *Corpus*, ii, nos. 20, 55; *Geschiedenis*, i, III–III3.

² The registers of Innocent III have been in print since the seventeenth century, those of Honorius III have been edited by Pressutti, while the publication of the registers of the other Popes of the thirteenth century is due to the French School at Rome. For the years from 1198 to 1276 practically the entire series of registers is in print, the most important for the present purpose being *Les registres de Grégoire IX*, edited by L. Auvray (Paris, 1896–1910, 2 vols. and 2 fascicles; the index has not yet appeared). Of the older collections of papal bulls the most important for the study of the Inquisition is of course the *Bullarium Ordinis FF. Praedicatorum* edited by Thomas Ripoll (Rome, 1729–40); the *Analecta sacri Ordinis Fratrum Praedicatorum* (Rome, 1893 ff.) contains supplementary material.

³ From one of these bureaux valuable documents, some of them relating to the Inquisition, have been preserved in a collection of forms of the papal penitentiary discovered and published by Lea in his *Formulary of the Papal Penitentiary* (Philadelphia, 1892). There is no evidence that any of the documents contained in the formulary are subsequent to 1243, and so far as they can be dated they fall within the pontificate of Gregory IX. The collection is ascribed in the title to a cardinal priest 'magister Thomasius,' whom Lea (p. xxxviii) identifies with Jacobus Thomasius Gaetanus, cardinal priest of St. Clement from 1295 to 1300. It is much more probable that the compiler was the famous

The existence of heresy in the North of France can be traced back as far as the early part of the eleventh century, when heretics were discovered and punished at Orleans, Arras, and Châlons-sur-Marne, and as time goes on heretics are found in most parts of the North, even in regions as remote as Brittany.¹ These heretics were Manicheans who had passed westward and northward from Italy and Provence along the great lines of trade, just as their predecessors may have followed the routes of Balkan commerce into Italy,² and they were most numerous in the classes that travelled most, the merchants and artisans of the towns. Their chief centres in the North were in French Burgundy and the Nivernais, in Champagne, whose fairs constituted the great international market of the twelfth and thirteenth centuries and brought together large numbers of traders from Italy and the North,³ and in Flanders, where the

Thomas of Capua, who is mentioned in certain of the forms. See Martin Souchon, in *Historische Zeitschrift*, lxxiii. 87 (1894); and my papers on "The Sources for the History of the Papal Penitentiary," in *American Journal of Theology*, ix. 421-450 (1905), and "Two Roman Formularies in Philadelphia," in *Miscellanea Francesco Ehrle* (1924), iv. 275-286.

Most of the forms concerning heretics in Lea's *Formulary* were taken over into the new edition of the formulary under Benedict XII, of which I have collated the manuscript at Tours (MS. 594, ff. 2-73).

¹ On the early history of heresy in Northern France see the excellent pioneer work of Charles Schmidt, *Histoire et doctrine de la secte des Cathares ou Albigeois* (Paris, 1849), i. 24-50, 86-94; Havet in the *B. E. C.*, xli. 498 ff.; Lea, i, chs. 2 and 3; H. Theloe, *Die Ketzerverfolgungen im 11. und 12. Jahrhundert* (Freiburg diss., 1913); T. de Cauzons, *Histoire de l'Inquisition en France*, i. 235 ff.

² Cf. Karl Müller, *Kirchengeschichte* (Freiburg, 1892-1919), i. 495; and on the predominance of the Catharan form of heresy in the North see Charles Molinier in the *Revue historique*, xliii. 167. Most of the places mentioned in the eleventh and twelfth centuries as seats of heresy in the North lie directly on the great trade routes, as may be seen by examining the map of overland trade routes at the end of Schulte's *Geschichte des mittelalterlichen Handels und Verkehrs zwischen Westdeutschland und Italien* (Leipzig, 1900). That the Albigensian Crusades also scattered heretics northward is altogether likely (Lea, ii. 113).

For instances of the close connexion between the heretics of Northern France and those of Italy see Fredericq, *Corpus*, i, no. 2; Albericus in SS., xxiii. 940, 944; Mousket, *Chronique rimée*, verses 28873, 28996; *H. F.*, xviii. 726; and the papal bulls in Auvray, no. 1044, and Chapotin, *Histoire des Dominicains de la province de France*, p. 224.

³ C. Alengry, *Les foires de Champagne* (Paris, 1915). On the central position of the fairs of Champagne at this time see Schulte, i. 156, 160. On Flemish

development of manufactures attracted considerable bodies of workmen from a distance and crowded them in towns for whose religious welfare the older ecclesiastical organization made no adequate provision.¹ So popular did the dualistic doctrines become among the weavers that the name *textor* became a synonym for heretic,² while suspicion easily fell upon the Flemish merchants by reason of their intercourse with the South and of the popular association of heresy with usury.³ The Waldensian element in the North of France was of later origin than the Manichean and of much less importance. Adherents of this sect are found in several neighbouring cities of the Empire, such as Metz, Toul, Strasbourg, and Besançon,⁴ and a later writer states that it was possible for a Waldensian journeying from Antwerp to Rome to spend every night with people of his faith,⁵ but exceedingly little is known of them in France. The clearest case is that of a baker of Rheims, named Echard, who was burnt in 1230 or 1231 after condemnation by a provincial council which at the same time felt it necessary to forbid the circulation of Romance versions of the Scriptures.⁶

The discovery and punishment of heresy in the earlier Middle merchants at the fairs see F. Bourquelot, *Études sur les foires de Champagne*, i. 139-141, 191 ff.; Pirenne, *Histoire de Belgique*, i, 2d ed. (1902), p. 254. Among the various discussions of the intercourse of Italian merchants with Champagne, see particularly C. Paoli, *Siena alle fiere di Sciampagna* (Siena, 1898), and A. Schaube, *Handelsgeschichte der romanischen Völker des Mittelmeergebiets bis zum Ende der Kreuzzüge* (Munich, 1906), pp. 374-391. Champagne was also of great importance in the woollen industry (Schulte, i. 127).

¹ Karl Müller, *Kirchengeschichte*, i. 493, 557; Pirenne, *Histoire de Belgique*, i. 333.

² Pirenne, *l. c.*; Schmidt, i. 43, 47; ii. 281; Du Cange under 'Textores'; Bernard of Clairvaux, *Sermones in Cantica*, lxxv, in Migne, *P. L.*, clxxxiii, col. 1092.

³ Persecution of merchants for heresy at Lille and Arras in Mousket, v. 28988; Fredericq, *Corpus*, i, no. 121. The association of heresy with usury is illustrated by Matthew Paris, *Chronica majora*, iii. 520, where he is speaking of Flanders. On the prevalence of usury in Flanders see SS., xxiv. 309; xxviii. 442; Auvray, no. 392.

⁴ H. Haupt, "Waldenserthum und Inquisition," in *Deutsche Zeitschrift für Geschichtswissenschaft*, i. 285 ff. (1889).

⁵ Trithemius, *Annales Hirsaugienses*, ad an. 1230 (edition of 1690, i. 543). The source of the statement is unknown. K. E. Müller, *Quellen welche der Abt Trithemius im ersten Theile seiner Hirsauer Annalen benutzt hat* (Leipzig, 1871), p. 30.

⁶ See Chapter XI, *infra*.

Ages was the duty of the bishop, assisted in the exercise of this, as of other judicial functions, by the archdeacon and later the official.¹ In securing information the bishop might avail himself of the machinery of local inquest, inherited from the Carolingian government, which placed at his disposal in every parish a body, usually seven, of *testes synodales*, sworn to reveal whatever they might know or hear of any offence coming within the bishop's jurisdiction. That among such offences heresy should have a prominent place was in itself natural, and was moreover particularly commanded by various councils, notably the great Lateran council of 1215. After an accusation of heresy had been brought to the bishop, by public presentment or private information—and the vagueness of the chroniclers on this point rarely permits us to determine the method employed in a particular case—there was still chance for considerable perplexity regarding the subsequent procedure. Cases of heresy were not of common occurrence, and while the canon law contained principles which were capable of application to such cases, the local prelate had few precedents to guide him as to the procedure to be followed or the penalty to be inflicted—indeed the preliminary question as to what constituted heresy might often puzzle any one but a theological expert. It is therefore not surprising to find the French bishops seeking the advice of their fellow prelates,² turning to a papal legate, if one happened to be near, or even consulting the Pope himself.³ The procedure was deliberate—at times too deliberate for the patience of the people, who in some instances lynched those whom the bishops sought to protect⁴—and apparently an effort was made to give the accused a fair trial as that was then understood. The examina-

¹ On the organization and procedure of the episcopal inquisition see particularly Lea, i. 305-315; Tanon, pp. 255-325; P. Hinschius, *Kirchenrecht*, v. 337 ff., 425 ff.; de Cauzons, i. 316 ff., 386 ff.; Theloe, *Die Ketzerverfolgungen im 11. und 12. Jahrhundert*. What is given below is of course only a very brief outline, and no attempt is made to treat the various legal questions involved.

² Examples in Fredericq, *Corpus*, i, nos. 3, 46, 48; *H. F.* xii. 266.

³ As at Liège in 1145 (Fredericq, *Corpus*, i, no. 30), Arras in 1153 (*ibid.*, no. 32), and Rheims in 1162 (*ibid.*, no. 36).

⁴ The instances will be found in the *B. E. C.*, xli. 507, 515; or in Tanon, p. 15. Cf. H. Maillet, *L'Église et la répression sanglante de l'hérésie* (Liège, 1909), pp. 33 ff., who cites such instances in order to relieve the clergy of responsibility.

tion was often conducted in the presence of a number of bishops,¹ or even an organized church council,² and mention is sometimes made of the presence of skilled jurists or masters in theology as well.³

When the matter of checking the spread of heresy was first taken up by the Popes, no fundamental change was made in the system just described. The legislation of Lucius III and Innocent III, besides defining heresy more sharply and requiring active assistance on the part of the secular power, was directed primarily toward increasing the responsibility of the bishop and empowering him to proceed against suspected persons on his own initiative, by virtue of his official authority, without waiting for formal accusations.⁴ Ultimately the legislation establishing this new inquisitorial procedure proved of the greatest importance in relation both to the pursuit of heretics and to the criminal process of the lay courts, but it created no new tribunals

¹ As at Vézelay in 1167 (*H. F.*, xii. 343) and in the persecutions at La Charité.

² Examples are: Liège, 1135 (Fredericq, *Corpus*, i, no. 25); Sens, 1198 (*H. F.*, xviii. 262); Dijon, 1199 (Hefele-Knöpfler, *Conciliengeschichte*, v. 798; French tr. by Leclercq, v. 1226); Paris, 1201 and 1210 (*ibid.*, v. 801, 861); Trier, 1231 (Fredericq, *Corpus*, i, no. 82); Rheims, 1230 or 1231 (Chapter XI, *infra*).

³ Potthast, nos. 693, 4197; SS., xxvi. 275. On the evidence used in the earlier French cases see Tanon, pp. 275, 303 ff., 324. Another example of the use of witnesses in Hauréau, i. 178. The application of canonical purgation was more common than Tanon states; see the instances of its employment for laymen at La Charité in Auvray, nos. 1044, 2825; Potthast, no. 10044. In the best known case, that of the dean of Nevers in 1199 and 1200 (Potthast, nos. 693, 1124, 1577), it appears that the accused was restored to office; his signature as dean is found in a charter of the year 1200, according to Parmentier, *Histoire sommaire de nosseigneurs les évêques de Nevers* (MS. in the Archives de la Nièvre), i. 102.

⁴ On the episcopal inquisition and the Popes see, besides the works cited above, the chapter in Fredericq's *Geschiedenis* (i, ch. 2); and on the obligations of the bishop, Henner, *Beiträge zur Organisation und Kompetenz der päpstlichen Ketzergerichte* (Leipzig, 1890), p. 47. The canons of the council of Verona and the Lateran council of 1215 which relate to heresy will be found in Fredericq, *Corpus*, i, nos. 56, 68. For the development of the so-called official procedure on the part of the bishop, which was by no means limited to cases of heresy, the eighth canon of the Lateran council (*Corpus Juris Canonici*, ed. Friedberg, ii. 745) is also important. Cf. Hinschius, *Kirchenrecht*, v. 349 ff.; Paul Fournier, *Les officialités au moyen âge* (Paris, 1880), pp. 91, 270-281; and A. Esmein, *Histoire de la procédure criminelle en France et spécialement de la procédure inquisitoire* (Paris, 1882), pp. 66 ff.

and for the time being affected only the episcopal authorities. Under Innocent III there was a significant growth in the number of appeals from bishops' sentences, and occasionally, in Languedoc, papal legates were sent out to supplement the local authorities, but no new organization was introduced, and the episcopal Inquisition remained until the time of Gregory IX the only regular machinery for the repression and punishment of heresy.

The practical workings of the episcopal Inquisition were frequently tested in the later twelfth and earlier thirteenth centuries in Northern France.¹ In the ecclesiastical province of Rheims, within whose borders were to be found the principal industrial and commercial centres of the North, a council met as early as 1157 to legislate against the Manichean weavers, "men of the lowest class who move frequently from place to place and change their names as they go,"² and within the next half-century numerous adherents of this sect were condemned in this region, particularly in Flanders, whence heretics fled to Cologne and even as far as England.³ Archbishop Guillaume I, who was also cardinal legate, and Count Philip of Flanders particularly distinguished themselves in these persecutions, yet heretics appear again at Soissons in 1204, at Arras in 1208, and at Cambrai in 1217,⁴ while in 1230-31 it was found necessary to convene a council of the province in order to forbid the circulation of Romance versions of the Scriptures and condemn the Waldensian errors of the baker Echard.⁵ At Paris in 1210 the bishop took the initiative in the proceedings against the followers of Amauri de Bène, who were then examined and condemned

¹ Many of the instances cited below will be found, often narrated at greater length, in Schmidt, i. 86-94, 362-365; Havet, *B. E. C.*, xli. 511 ff.; Lea, i. 130, 131, 307 ff.; Fredericq, *Geschiedenis*, i. 21 ff.

² Fredericq, *Corpus*, i, no. 34.

³ Fredericq, *Corpus*, i, nos. 36-38, 40-44, 46, 48-55; ii, nos. 9, 10, 17; Ralph of Coggeshall, ed. Stevenson, pp. 121 ff.; Frederichs, "De Kettervervolgingen van Philips van den Elzas," in the *Nederlandsch Museum* for 1890, pp. 233-245. Frederichs places in 1160 the council at Oxford which condemned the Flemish heretics, evidently failing to observe the evidence on this point contained in the Assize of Clarendon of 1166.

⁴ *H. F.*, xviii. 713; Fredericq, *Corpus*, i, nos. 64, 69.

⁵ See below, Chapter XI.

by a provincial council, and burnt by authority of Philip Augustus.¹ The same council pronounced against the doctrines of Amauri and others, a precedent which was followed some years later by a council of the same province,² and early in the reign of St. Louis a Franciscan who preached heresy at Paris was condemned by a papal legate.³ No ecclesiastical authority is mentioned in the accounts of the heretics who were burnt at Troyes in 1200 and 1220⁴ and at Orleans about the same time;⁵ those who appeared in 1206 in Brittany were reported by the parish priest directly to the Pope, who referred the matter to the archdeacon of St. Malo and two abbots.⁶

In the East, in the dioceses of Auxerre and Nevers and the adjoining portions of the dioceses of Langres and Autun, cases of heresy were of more frequent occurrence, and called for constant watchfulness on the part of the bishops. Appearing in this region first in 1167 at Vézelay, where several were condemned at the instance of the abbot of the monastery,⁷ the heretics soon spread their teachings in the neighbouring lands of French Burgundy and the Nivernais, where they numbered among their converts knights and wealthy bourgeois as well as men and women of the lower classes, and even brought suspicion, at Nevers, upon the abbot of St. Martin's, the dean, and one of the canons of the cathedral. The whole machinery of the episcopal Inquisition was turned against them—the preaching of Foulques de Neuilly, the active efforts of the archbishop of Sens and the

¹ See in particular the *Chartularium Universitatis Parisiensis*, i, nos. 11, 12; Caesar of Heisterbach, ed. Strange, i. 304 ff.; *H. F.*, xvii. 83; xix. 250; *SS.*, xxvi. 275; G. Théry, *Autour du décret de 1210* (Kain, 1925–26; *Bibliothèque Thomiste*, vi, vii); M. De Wulf, *Histoire de la philosophie médiévale*, 5th ed. (Louvain and Paris, 1924–25), i. 235. References to the numerous modern discussions concerning the doctrines condemned in 1210 will be found in Mandonnet, *Siger de Brabant* (2d ed., i. 17–19, Louvain, 1911).

² Hefele-Knöpfler, v. 933; *Chartularium Universitatis Parisiensis*, i, no. 50.

³ *H. F.*, xviii. 319; xxi. 598.

⁴ *SS.*, xxiii. 878; Caesar of Heisterbach, i. 307.

⁵ *Enquête* of the time of St. Louis concerning the king's justice at Orleans: 'Hugo de Fossatis iuratus dixit quod vidit in tempore Manasseri episcopi quendam hominem dampnatum pro incredulitate de quo dominus rex fecit iusticiam secularem per ignem.' Archives Nationales, J J. 26 (the so-called 'Register E of Philip Augustus'), f. 277. The bishop was probably Manasses de Seignelay (1207–21).

⁶ Potthast, no. 2941.

⁷ *H. F.*, xii. 343, 345.

bishops of the region, the authority of provincial councils, the aid of the secular arm¹—and the zeal of Bishop Hugues of Auxerre gained for him the title of ‘hammer of heretics,’² yet in spite of conversions and penances and sentences of death the infection remained.³ For a time it seemed as if some impression had been made upon the chief stronghold of the movement, the town of La Charité-sur-Loire, yet after the death of Bishop Hugues in 1206⁴ the fugitives returned and many of the converts relapsed into their old ways, so that within two years the Pope was obliged to send the new bishop of Auxerre and the bishop of Troyes against them.⁵ The new inquisitors did diligent service, among other things promulgating a set of statutes “to confound the abuses of heresy and strengthen the state of the faith,”⁶ and for several years nothing is heard from the scene of their labours. In 1231, however, Gregory IX discovered that heresy had again lifted its head at La Charité, under the protection of certain nobles of the region, who were at open feud with the prior and temporal lord of the town,⁷ and this time the archbishop of Bourges, who had some reputation as a successful persecutor, was commissioned to act with the bishop of the diocese.⁸ Traces of the activity of these inquisitors

¹ Hervé, count of Nevers, who died in 1222, is called ‘hereticorum precipuus persecutor.’ *Histoire littéraire*, xxxii. 530; Vincent de Beauvais, *Speculum historiale* (Douai, 1624), iv. 1275.

² See his biography in *H. F.*, xviii. 726, and L. M. Duru, *Bibliothèque historique de l’Yonne*, i. 433; and cf. Robert d’Auxerre in *H. F.*, xviii. 273, or *SS.*, xxvi. 270.

³ On the heretics of the Nivernais see the other passages in the chroniclers just cited (*H. F.*, xviii. 262, 264, 729; *SS.*, xxvi. 258, 260); also *H. F.*, xix. 7; Potthast, nos. 693, 745, 1124, 1577, 1678, 1909, 2131; and the bulls cited in the following notes. The *Cartulaire du prieuré de La Charité-sur-Loire* published by Lespinasse (Nevers, 1887) and the charters from La Charité in the Bibliothèque Nationale (MSS. Lat. n. a. 2274, 2275) do not appear to contain anything on the subject. The persecutions for heresy at La Charité have now been narrated by E. Chénon, in *Nouvelle revue historique de droit*, xli. 299–345 (1917).

For cases in the diocese of Langres see Potthast, nos. 4197, 4700; Auvray, no. 1078.

⁴ For a case in this year see Potthast, no. 2787.

⁵ Potthast, no. 3271.

⁶ Auvray, no. 637.

⁷ The prior of La Charité had possessed temporal jurisdiction over the town since 1174. Lespinasse, *Cartulaire*, p. 160.

⁸ Auvray, no. 637. The archbishop died in 1232. Cf. his epitaph in P. Labbé, *Nova bibliotheca manuscriptorum librorum* (ii. 109), beginning ‘Exuperans hereses.’

are found in various documents in the papal registers,¹ yet in January, 1233, the Pope found it necessary to arouse the local authorities to action against a knight of La Charité who had fallen under suspicion because of the heresy of his brothers and his supposed connexion with the attacks of the count of Nevers on the neighbouring monasteries,² and some weeks later he appealed to the French king on behalf of the prior in his valiant struggle to maintain the faith in the face of the hostility of neighbouring lords.³ Near the end of February Gregory IX, notwithstanding his earlier laudations of the French church as the "unshaken foundation of the faith,"⁴ was obliged to confess that heresy was spreading "in a certain part of the circumference of the kingdom,"⁵ and in April of the same year (1233), the reports of Friar Robert indicating an even worse state of affairs at La Charité than had been supposed, the papal Inquisition was introduced into the North.

In spite of repeated effort the episcopal Inquisition had plainly failed to accomplish the suppression of heresy at La Charité, and while we cannot be sure that it was given an equally fair trial in Champagne and Flanders, it is clear from the numerous convictions secured by the first papal inquisitor sent to those regions that the bishops had had no greater success in the other infected areas of the North. That the indifference of the bishops and their absorption in secular affairs may have had some share in this result, it would be idle to deny. But when a man of the energy and persistence of Hugues de Noyers was unable to eradicate the new beliefs from his diocese, it would seem that we must, in part at least, look elsewhere for an explanation. For one thing the duties of the episcopal office were so manifold

¹ Sentence of exile and confiscation (Auvray, no. 997); canonical purgation of a citizen of Souvigny (Auvray, no. 2825; Potthast, no. 10044); acquittal of a woman of La Charité (B.N., Coll. Moreau, 1191, f. 25). The examination of a canon of Chablis by the bishops of Auxerre and Nevers and the abbot and dean of Vézelay (Auvray, no. 1078) belongs to the same period.

² Auvray, no. 1044. The bishop's act of summons to the suspected knight, Colin Morand, is cited by J. Lebeuf, *Mémoires concernant l'histoire civile et ecclésiastique d'Auxerre* (ed. Challe and Quantin), i. 411.

³ Bull of 28 February, 1233: Auvray, no. 1145. Cf. no. 1144.

⁴ Bull of 18 July, 1227: Auvray, no. 133.

⁵ Bull of 27 February, 1233: Auvray, no. 1152.

that no bishop could give more than intermittent attention to the investigation of heresy.¹ Then, if one bishop began a persecution, it was easy, in the absence of concerted action, to find at least temporary safety in another diocese,² while if heretical doctrine were entirely driven out of a district, it might immediately be reintroduced by some wanderer from Lombardy or Languedoc. The fact is that heresy had become more than a local problem, and by the thirteenth century something more than local means was necessary if it was to be suppressed. The system of procedure, too, was slow and cumbrous, having been for the most part taken over from the practice in dealing with offences where the rights of the accused were more carefully regarded, and satisfactory proof of heresy was particularly difficult to obtain by ordinary means, while the growing tendency to appeal to Rome or consult the Pope introduced a further element of delay. The disadvantages of the current procedure—and the evident desire of Innocent III to do justice—are illustrated by the case of certain inhabitants of La Charité. Excommunicated as suspects by the bishop of Auxerre, they succeeded, in 1199, in maintaining their orthodoxy before the papal legate, Peter of Capua, who proclaimed their release from excommunication in a council at Dijon and assigned them a penance which evidently included pilgrimage to Rome. Some, however, were too old or too feeble to undertake this journey, and Innocent III directed the bishops of Autun and Mâcon and the abbot of Cluny to pass upon their case and to protect from further molestation those who had satisfactorily performed the penance. The bishop of Auxerre still continued his accusations, carrying the matter to two other sets of judges and finally bringing the archbishop of Sens and certain of his suffragans to La Charité to conduct the examination. When the accused remained away on this occasion, as they had at the time of the

¹ On this point cf. Fredericq, *Corpus*, i, nos. 75, 89.

² Gregory IX says of the heretics of La Charité: 'Si quis vulpes incipiat prosequi, ut iurisdictionem eius effugiant vel evitent, ad aliam se transferunt regionem.' Bull *Gaudemus*: Fredericq, *Corpus*, i, no. 90. So in the time of Innocent III residents of the diocese of Auxerre would declare that they belonged in the diocese of Bourges or that of Nevers. Potthast, no. 3271.

bishop's previous visits to the town, and failed to appear at a hearing set for them at Auxerre, the archbishop condemned them as heretics. The case was then carried to the Pope, who referred it to the archbishop of Bourges, the bishop of Nevers, and the abbot of Cluny, with instructions to publish the men in question as heretics and hand them over to the secular power unless they made public confession of their error and gave security for their future orthodoxy.¹ After some months the archbishop and abbot—the bishop of Nevers having died—reported their findings to the Pope, at the same time sending to Rome three of the accused whom the archbishop had adjudged orthodox, and in May, 1203, four years after the proceedings had begun, the Pope sent back the parties with instructions to the judges delegate to prescribe penance for them and continue the examination of the other cases.² This affair may have run on longer than was usual,³ but where such delays could occur, it is obvious that, if the mediaeval view of the enormity of the crime of heresy and the absolute necessity of its extermination were to continue to prevail, some more effective agency for the purpose must be devised. What was evidently needed was a set of inquisitors who could give their whole time and energy to the detection and punishment of heresy, inquisitors able to act promptly and without regard to diocesan boundaries, locally powerful, yet independent of local control, the willing instruments of the papal policy, yet not hampered by the delay of frequent appeals to Rome—in short just such an institution as the Popes ultimately organized in the Dominican Inquisition.

We cannot too often remind ourselves that the papal Inquisition “was not an institution definitely projected and founded, but was moulded step by step out of the materials which lay nearest to hand fitted for the object to be attained.” A Pope

¹ Bull *Accedentes* of 12 May, 1202: Potthast, no. 1678.

² Bull *Qualiter* of 21 May, 1203: Potthast, no. 1909.

³ An equally convincing illustration of the delays of the procedure under Innocent III is afforded by the case of a certain canon of Langres and priest of Mussy who appears in the papal registers in 1211 and 1213. Potthast, nos. 4197, 4700; Lea, i. 307. If this person is the same as the heretical priest of ‘Musciac’ mentioned in a papal bull of 1233 (Auvray, no. 1044) he had great success in eluding the Inquisition.

who had the extermination of heresy very much at heart found the old methods ineffective; "the preaching friars were the readiest instrument within reach for the accomplishment of his object;" he tried them, and the success of the experiment "led to an extended and permanent organization."¹ The episcopal Inquisition was not thereby abolished, indeed the Dominicans were instructed to act in conjunction with the bishops, and it was only considerably later that a new set of tribunals for the trial of heresy came into existence, with their own distinct organization and rules of procedure.² How this development came about and how it was related to the centralizing tendencies within the church, it is no part of our present purpose to examine; our only immediate interest is to observe the events which led up to the introduction of the Dominican Inquisition into Northern France. The first definite move toward the establishment of a distinctively papal Inquisition was made in the territory of the Empire, in June, 1227, when Gregory IX commissioned the fanatical Conrad of Marburg to proceed against the heretics of Germany with the assistance of such associates as he might select,³ and placed the case of certain heretics of Florence in the hand of the local members of the Dominican order.⁴ It was not, however, until early in 1231 that Gregory IX seriously took up the task of unifying and defining more sharply the ecclesiastical and secular legislation against heresy and, with the support of the Emperor, compelling its general enforcement throughout Roman Christendom.⁵

¹ Lea, i. 328. Douais, *L'Inquisition*, pt. 1, ch. 5, tries without success to shift the responsibility from Gregory IX to Frederick II; cf. Turberville, pp. 151 ff.

² Cf. Hinschius, *Kirchenrecht*, v. 450. It is at the same time true, as Tanon points out (pp. 36, 291), that much of the exceptional character of the penalties and the procedure was in germ before the organization of the Dominican Inquisition.

³ Potthast, no. 7931; Auvray, no. 109. Conrad had been engaged in the persecution of German heretics in 1224, in connexion with the bishop of Hildesheim, and perhaps earlier. For his remarkable career see Emil Michael in his *Geschichte des deutschen Volkes* (Freiburg, 1897-1916), ii. 318 ff.; A. Hauck, *Kirchengeschichte Deutschlands*, iv (1903), pp. 879 ff. ⁴ Lea, i. 326.

⁵ On the legislation of 1231 see J. Ficker, "Die gesetzliche Einführung der Todesstrafe für Ketzerei," in *M. I. O. G.*, i. 177-226 (1880); Winkelman, *Kaiser Friedrich II.* (Leipzig, 1889-97), ii. 296 ff.; H. Köhler, *Die Ketzerpolitik*

The immediate occasion which decided the Pope to action seems to have come then, as at other critical moments in the history of the church, from the city of Rome. Returning after an absence of some months, Gregory found the city infested with a considerable body of heretics, and in order to facilitate the proceedings against them he had the various provisions of the canon law with reference to the punishment of heresy collected and consolidated, with some modifications, into the so-called 'new statutes' of 1231, and at the same time gave his sanction to a series of constitutions drawn up by the senator and people of Rome which made the secular penalties against heresy more severe. In the course of the following summer copies of the new code were sent to the archbishops and bishops throughout the church with instructions to have the papal statutes read in public once a month and the secular constitutions transcribed into the local books of law. In November of the same year the execution of the new statutes at Friesach, in Carinthia, was entrusted to the Dominicans,¹ and early in 1232 the Preaching Friars engaged in the work of the Inquisition were especially commended to the protection of the German princes by both Pope and Emperor.² In this year the Pope also recommends the employment of the Dominicans to the archbishop of Tarragona,³ and Dominican inquisitors are found acting under papal commissions in Lombardy⁴ and Burgundy.⁵ In France, while some inquisitorial authority had previously been exercised in the South by members of the order,⁶ the definite establishment

der deutschen Kaiser und Könige in den Jahren 1152-1254 (Bonn, 1913). The statutes of Gregory and the accompanying Roman legislation will be found in Fredericq, *Corpus*, i, nos. 79, 80; Auvray, nos. 539, 540. Havet, *B. E. C.*, xli. 602, ascribes a decisive influence to Bishop Guala of Brescia, a Dominican, while Acton, *History of Freedom*, p. 557, suggests the importance of Raymond of Peñafort.

¹ E. Winkelmann, *Acta Imperii inedita*, i. 499, where similar documents of the following year for Mainz and Strasbourg are cited.

² Potthast, nos. 8859, 8866; *M. G. H.*, *Constitutiones et acta publica*, ii. 196.

³ Potthast, no. 8932.

⁴ Potthast, no. 9041.

⁵ The bull appointing inquisitors in Burgundy is lost, but its contents are known from a citation in the bull *Gaudemus* of 19 April, 1233, and it evidently belongs to 1232. Potthast, no. 9152; see below.

⁶ Potthast, no. 9153.

of the Dominican Inquisition dates from April, 1233, when Gregory IX informed the French bishops that in view of their overwhelming cares and anxieties he had decided to reduce their burdens by sending the Preaching Friars against the heretics of the kingdom,¹ and, at the same time that he ordered the Dominican provincial prior to designate preachers against heresy in Provence,² he commissioned Friar Robert and his fellow inquisitors at Besançon to proceed against the heretics of La Charité.³

Concerning the early life of the Dominican friar whom Gregory IX selected as the first papal inquisitor in Northern France, our only knowledge is derived from the incidental statements of those who treat of his later career. That he had once been a heretic (*bougre*) is clear from the name, Robert le Bougre, by which he was generally known, and is confirmed by the general agreement of the chroniclers; but beyond this point the accounts are somewhat conflicting,⁴ and it is not certain how much of

¹ Bull of 20 April, 1233, copied in the Collection Doat (xxx. 21) of the Bibliothèque Nationale from the Archives of the Inquisition at Carcassonne. Part of it, with date of 13 April, was published by Percin, *Monumenta conventus Tolosani*, iii. 92, whence it is reproduced by Fredericq, *Corpus*, i, no. 89 (Potthast, no. 9143; not in Auvray).
² Potthast, no. 9155.

³ Bull *Gaudemus*, of 19 April, 1233. Auvray, no. 1253; Potthast, no. 9152; Fredericq, *Corpus*, i, no. 90.

⁴ Most of the contemporary chroniclers treat only of particular episodes in Friar Robert's history. Those of special importance as general authorities for his career are:

Matthew Paris, in his *Chronica majora* (edited by H. R. Luard, iii. 361, 520; v. 247; by F. Liebermann in the SS., xxviii. 133, 146, 326); his *Historia Anglorum* (edited by Madden, ii. 388, 415; and by Liebermann, SS., xxviii. 411); and the *Abbreviatio chroniconum Anglie*, attributed to him (edited by Madden as part of the *Historia Anglorum*, iii. 278; and by Liebermann, SS., xxviii. 448). Liebermann's edition is preferable; Frederichs missed important passages by relying upon the edition of 1640.

Albericus Trium Fontium, ed. P. Scheffer-Boichorst, SS., xxiii. 936, 937, 940, 945; also in *H. F.*, xxi. 614, 615, 618, 623. On the composition of this work see Scheffer's masterly introduction to his edition. Albericus was a monk of Trois-Fontaines, in the diocese of Châlons-sur-Marne, and had special opportunities of knowledge regarding Robert's doings in Champagne; some portions of the chronicle in its present form were added by a monk of Huy.

Philippe Mousket, *Chronique rimée*, verses 28871-29025. Best edited, but with important omissions, by Tobler in SS., xxvi. 804-806; also ed. de Reiffenberg (Brussels, 1836-38); *H. F.*, xxii. 55-56; Fredericq, *Corpus*, ii, no. 23

these stories is fact and how much is the product of aetiological imagination playing about his name. His real name, it has recently been discovered, was Robert le Petit,¹ so that he would seem to have been a Frenchman, but we know nothing of the time or place of his birth. A work attributed to Matthew Paris makes him the son of a heretic,² but according to Albericus he left the orthodox faith about the time of the Lateran council of 1215 and followed a Manichean woman to Milan, then famous as one of the principal breeding-grounds of false doctrine. He is said to have remained a member of this sect³ for several years—the chroniclers give the round numbers ten and twenty—and to have risen to the rank of ‘apostle’ among them. Certain it is that he acquired in his earlier years a familiarity with heretics and their ways which, combined with his fiery zeal and ambition, made him particularly terrible as an inquisitor and gained for

Mousket lived at Tournai, where he is mentioned in certain leases of the years 1236 or 1237. On his life and family see B. C. Du Mortier in the *Compte-Rendu* of the Commission Royale d'Histoire, ix. 112–145 (Brussels, 1845); and Pirenne in the *Biographie nationale*, xv. 329.

With these we may for convenience mention a less trustworthy writer who characterizes Robert briefly, Richer de Senones. His *Chronicon* has been edited by Waitz, *SS.*, xxv. 307; this passage is omitted in the older edition of d'Achery.

¹ ‘Quondam frater Robertus dictus Lepetit.’ Bull. *Constitutus* of Urban IV, 25 October, 1263, published from the papal registers by Chapotin, *Histoire des Dominicains de la province de France*, pp. 224–225; J. Guiraud, *Les registres d'Urban IV*, no. 1180.

² *Historia Anglorum*, iii. 278; *SS.*, xxviii. 448. Richer says that as inquisitor he condemned his father and mother to death. *SS.*, xxv. 308.

Finke, in the *Historisches Jahrbuch*, xiv. 335, points out that in the case of Robert it would have been better if the Pope had followed the later rule of appointing as inquisitors only those of orthodox family and unblemished orthodoxy.

³ ‘Circa tempus magni concilii apostatavit, secutusque mulierculam manicheam Mediolanum abiit, et factus est de secta illa pessima per annos 20, ita quod inter eos fuit perfectissimus.’ Albericus, *SS.*, xxiii. 940. Mousket, vv. 28873–28876:

Et dist quil ot mes a Melans,
Et si eut este par dis ans
En la loi de mescreandise
Pour conoistre et aus et lor guise.

The passage of Albericus is perfectly plain, but Chapotin (*Histoire des Dominicains*, p. 216, note) makes it say that Robert was a Dominican before his apostasy, and then became a Waldensian.

him the name of the Hammer of Heretics.¹ He was supposed to be able to tell unbelievers by their speech and gestures alone,² and Gregory IX declared that God had given him "such special grace that every hunter feared his horn."³ It would also seem that he had acquired something of the learning of his day, for Matthew Paris declares him well educated and a ready and effective preacher,⁴ and Richer calls him *magister* and speaks of his learning and eloquence.⁵ Of the personal character of Friar Robert we have only unfriendly judgements, formed after his fall. Matthew Paris, certainly no admirer of the Mendicant Orders at their best,⁶ finds him false and corrupt, a deceiver and seducer of men worthy of being compared to the leader of the Pastoureaux—a man whose crimes it were better not to mention and who was "turned aside like a deceitful bow" at the last.⁷ He was a man who seemed to have much religion but had it not, says Albericus.⁸ To Richer he was the incarnation of hypocrisy, a wolf in sheep's clothing, wholly given over to uncleanness and the glory of this world, who did not hesitate to avail himself of magic arts in order to bend people to his will.⁹

The first definite point in Friar Robert's biography appears in or about the year 1232, when we find him, already a member of the order of Preaching Friars, appointed on a commission with the Dominican prior at Besançon and a certain Friar William,

¹ Matthew Paris, *Chronica majora*, iii. 361, 520; SS., xxviii. 133, 147.

² 'Per solam loquelam et per solos gestus, quos habent heretici, deprehendebat eos.' Albericus, SS., xxiii. 940.

³ Bull *Quo inter ceteras* of 22 August, 1235. Auvray, no. 2737; Potthast, no. 9994; Fredericq, *Corpus*, ii, no. 28.

⁴ 'Vir quidem competenter literatus et in officio predicationis efficax et expeditus.' *Chronica majora*, iii. 520; SS., xxviii. 146.

⁵ 'Vir doctissimus et eloquio clarus . . . qui tantam habuit gratiam ut nullus ei tunc secundus haberetur.' SS., xxv. 307.

⁶ Cf. H. Plehn, *Der politische Charakter von Matheus Parisiensis*, p. 45 (in *Staats- und socialwissenschaftliche Forschungen*, ed. G. Schmoller, xiv, 3 (Leipzig, 1897)).

⁷ *Chronica majora*, iii. 520; v. 247; *Historia Anglorum*, ii. 388; SS., xxviii. 147, 326, 411.

⁸ SS., xxiii. 940.

⁹ SS., xxv. 307. One is tempted to see an allusion to our inquisitor in the 'Frere Robert' whom Rutebeuf mentions together with five other friars in one of his satires on the hypocrisy of the Mendicants (ed. Jubinal, 1874, i, p. 246; ed. Kressner, p. 72); but I agree with Jubinal that the names are probably fanciful.

or Walter, to investigate heresy in Burgundy.¹ It is no longer possible, with the materials at our command, to follow the course of the Inquisition in Franche-Comté.² This part of the Empire never became notorious as a centre of heretical activity, and while his authority under the papal bull was limited to the Burgundian lands, we are not surprised to find Friar Robert, early in 1233, seeking a more promising field of labour at La Charité in the Nivernais. Acting here as the representative of his official superior at Besançon, Robert began to preach the true faith with such success, so he reported to the Pope, that many of the erring came to him of their own will, presenting themselves for punishment with chains about their necks and offering to give evidence against their associates and even against members of their own families. He found the town a 'foul nest' of heresy, even fouler than was generally supposed, and discovered that its inhabitants had scattered their dire poison through the whole of Northern France, particularly in the neighbouring provinces and in Flanders; and he adds, what was undoubtedly one of the serious difficulties in any merely local attempt to suppress heresy, that when pursued the heretics fled to another jurisdiction.³

¹ The bull is lost but is known to us from a citation in the bull *Gaudemus* of 19 April, 1233: 'Cum enim nos dudum dilectis filiis . . . priori Bisuntino et fratri Willelmo (Ripoll has Wallerio), de ordine fratrum predicatorum, ac tibi nostris dedissemus litteris in mandatis, quod in Burgundia super crimine prenotato sub certa forma cum ipsis perquireres diligenti sollicitudine veritatem' (Auvray, no. 1253; Potthast, no. 9152; Fredericq, *Corpus*, i, no. 90). This appointment of inquisitors for Burgundy is evidently subsequent to the decrees of February, 1231, and probably belongs to 1232. The name of the prior at Besançon is not given in the bull; in an act of April, 1233, he appears as 'frater W. prior ordinis predicatorum Bisuntinensium' (B.N., Coll. Moreau, MS. 863, f. 539 v).

² Cf. Lea, ii, 119. There are two bulls on this subject from the year 1233, one of 27 May to the suffragans of the archbishop of Besançon (published by Lea, i, 567, from the Collection Doat, where it is classified under Gregory X) repeating the instructions recently given to the German prelates for the imprisonment of relapsed heretics (Rodenberg, *Epistolae*, i, no. 514), the other of 17 June answering certain questions of the Dominicans of Besançon (Auvray, no. 1416; Potthast, no. 9235). I have looked in vain for documents at Besançon, where the Dominicans had been established since 1224 (Richard, *Histoire des diocèses de Besançon et de Saint-Claude*, i, 473; Chapotin, *Histoire des Dominicains de la province de France*, p. 53).

³ Our knowledge of Robert's experiences at La Charité rests upon his own

La Charité not being within the limits of his commission, Robert was obliged to confine his efforts to preaching, and his report to the Pope was evidently made with a view to having his jurisdiction as inquisitor extended to France. Gregory IX was not averse to more vigorous measures, and in a bull of 19 April, 1233, he ordered Robert and his fellow inquisitors of Burgundy to undertake, with the advice of the bishops and in accordance with their previous instructions, "the extirpation of heresy from the aforesaid town and the adjoining regions," invoking if necessary the aid of the secular arm. They were empowered to proceed against harbourers of heretics in accordance with the statutes of 1231, and were cautioned against feigned conversions.¹ Having written to the same effect to the provincial prior of the Dominicans in France,² the Pope informed the archbishops and bishops of that kingdom that he had decided to send the Friars Preachers against the heretics of France and adjacent provinces and would expect the clergy to render them all necessary assistance.³

By these bulls the papal Inquisition was regularly set to work in Northern France, and the fires of orthodoxy soon began to blaze at La Charité.⁴ We do not know how many were put to death at this time, but that Friar Robert went aggressively to work is evident from the reaction which followed and also from such appeals from his sentences as have come down to us. One of these may serve to illustrate his methods. A certain Pierre Vogrin, of Souvigny, in the diocese of Clermont, who had been at La Charité at the time of the episcopal Inquisition of 1231 and 1232, had cleared himself before the inquisitors by the

statement as reproduced in the bull *Gaudemus* of 19 April, 1233 (Auvray, no. 1253; Potthast, no. 9152; Fredericq, *Corpus*, i, no. 90). Doubtless he informed the Pope promptly of his labours there, so that they must have fallen in the early months of 1233. The *Circa mundi vesperam* of 28 February (Auvray, no. 1145) mentions the efforts of the prior of La Charité, but says nothing of Robert. See further E. Chénon, "L'hérésie à La Charité-sur-Loire," in *Nouvelle revue historique de droit*, xli (1917).

¹ Bull *Gaudemus*, as above.

² This bull has been lost but is referred to in the bull *Quo inter ceteras*, of 22 August, 1235 (Auvray, no. 2737; Potthast, no. 9994; Fredericq, *Corpus*, ii, no. 28).

³ Fredericq, *Corpus*, i, no. 89; Potthast, no. 9143.

⁴ Mousket, vv. 28877 ff.

canonical purgation. Accused again by certain of his enemies, he had satisfied the bishop of Clermont and other prelates of his innocence. A third summons came to him from Friar Robert after his appointment, and when Pierre appeared before them and agreed to submit to their jurisdiction, the friar and the bishop of Clermont promised him that he would not be compelled to appear before either of them separately and that the legal procedure would be observed. Notwithstanding this, Robert, without waiting for his colleague, cited him to a dangerous place before the appointed time, publicly threatening to take him and bringing an armed band to the spot, whereupon Pierre prudently stayed away and took an appeal to the Pope, sending his nephew to represent him and notify Robert of his appeal. The inquisitor then excommunicated the nephew and suspended him from his benefice—he was a priest—until he should renounce his uncle's defence. Pierre then started for Rome, but in spite of his appeal was excommunicated by Robert and a certain Franciscan who had been pressed into service in place of the bishop of Clermont.¹

Such open disregard of a bishop and contempt for the findings of predecessors would naturally irritate the higher clergy, already jealous of the growing privileges and influence of the Mendicant Orders. It appears further that Robert did not limit his efforts to the region of La Charité. We find him also in company with another friar, Jacques, on the lands of the count of Champagne, where he is in conflict with the chapter of Saint-Quiriac of Provins, in the diocese of Sens, over a certain Gile, nicknamed 'the abdess,'² whom he had put in prison as a heretic. They style themselves "judges delegated by the Pope against heretics in the kingdom of France,"³ and it is evident from what followed

¹ Bull of 8 November, 1235, to the bishop of Nevers, the Dominican provincial prior, and the archdeacon of Paris, published by Sbaralea in his *Bullarium Franciscanum*, i. 177, and by Auvray, no. 2825 (Potthast, no. 10044).

² On Gile 'the abdess,' compare Albericus, SS., xxiii. 945.

³ 'Frater Robertus iudex contra hereticos mandat regi ut deliberet decano et capitulo Sancti Quiriaci Gilam abbatissam suam, ut dicunt, si ita est.

'Nobili viro Theobaldo comiti Campanie et Brie fratres Robertus et Iacobus de ordine Predicatorum, iudices a domino papa contra hereticos in regno Francie delegati, salutem in Domino. Quoniam ex precepto nostro Gilam

that victims were sought in still other dioceses less notorious than that of Auxerre as centres of heresy. 'Pernicious activity' of this sort was a direct reflection on the zeal and efficiency of the French bishops, and it is not strange that some of them soon protested to the Pope, declaring that there were no heretics in their dioceses. The documents are lost, but their general tenor is clear from some pointed allusions in later letters of the Pope.¹ These objections must have been urged with considerable force, for in February, 1234, the Pope, declaring in the midst of an extraordinary mixture of metaphors that he had never intended to authorize their proceedings in regions that were free from taint of heresy, ordered the Dominicans to suspend their functions as inquisitors entirely, except where the archbishop and his suffragans called them in, a course which he warmly recommended to the several archbishops.²

dictam abbatissam detinetis in carcere, quam venerabiles viri decanus et capitulum Sancti Quiriaci de Pruvino suam asserunt esse mulierem, auctoritate [MS. actum] nobis commissa vobis mandamus quatinus, si est ita sicut dicunt, eam absque contradictione aliqua tradatis eisdem ad custodiendum, et custodes a rebus et domibus dicte G. removeatis, si forte aliquos posuistis.

'Datum anno Domini M^oCC^oXXX^oIII^o, die martis ante cathedram sancti Petri [21 February, 1234].' B.N., MS. lat. 5993A (Cartulary of Champagne known as *Liber pontificum*), f. 412. Cf. F. Bourquelot, *Histoire de Provins*, i. 182. There is an incorrect analysis in H. d'Arbois de Jubainville, *Catalogue des actes des comtes de Champagne*, no. 2293 (*Histoire des comtes de Champagne*, v. 332). This is the only document issued by Friar Robert that I have found.

Cf. also the following document relating to the same subject:

'Item compromiserunt in bonos super immuratione Gile abbatisse et magna iusticia hominum ecclesie sue.

'Omnibus presentes litteras inspecturis Gaufridus decanus totumque capitulum ecclesie Beati Quiriaci Pruviniensis salutem in Domino. Noverit universitas vestra quod cum illustris dominus Th., Dei gratia rex Navarre et comes Campanie et Brie palatinus, moveret contra nos questionem super innur-
<mur>atione Gile dicte abbatisse et rebus eiusdem et super magna iusticia hominum nostrorum de Pruvino pro sceleribus suis ad mutilationem membrorum vel ad mur-
<mur>ationem vel ad mortem dampnandorum et super rebus eorum, tandem in venerabiles viros dominum Petrum de Ianicuria et dominum Ansellum de Cremonia compromittimus, ratum et firmum habituri quidquid super predictis dicti arbitri pace vel iudicio duxerint statuendum. Datum anno Domini M^oCC^o trecesimo quarto, mense Ianuario [1235].' MS. lat. 5993A, f. 436; analysis in d'Arbois, *Catalogue*, no. 2319.

¹ Bulls *Dudum* and *Quo inter ceteras* of August, 1235 (Auvray, nos. 2735, 2736, 2737; Potthast, nos. 9993, 9994, 9995).

² Bull *Olim intellecto* to the prior provincial of the Dominicans, 15 February, 1234 (Auvray, no. 1764—limited in this form to the province of Sens). The

Accordingly, early in 1234, Robert was obliged to cease his pursuit of heretics. People whom he had imprisoned were still maintained at public expense,¹ but there is no evidence that any bishop followed the Pope's advice to the extent of employing the terrible inquisitor.² How the friar occupied himself during this enforced vacation, it is impossible to say. We know that early in 1234 a royal messenger was sent to him "for the bailli of Bourges,"³ and that in November of the same year Gregory IX addressed him at Paris. Evidently Robert remained in full favour with the Pope and with St. Louis, for the Pope appealed to him to use his influence to secure peace between the kings of

same, 4 February, 1234, to the archbishop of Sens and his suffragans (Auvray, no. 1763; Potthast, no. 9388). The same, 4 February, 1234, to the archbishop of Rheims and his suffragans (Potthast, no. 9386; Fredericq, *Corpus*, i, no. 93; not in Auvray). The same, without date, to the dean and chapter of Bourges—the see was vacant—and the bishops of the province, in the cartulary of the chapter of Bourges (B.N., MS. lat. n.a. 1274), p. 42. This copy, which is headed 'De revocatione iurisdictionis fratris Roberti,' differs from the other bulls in revoking the authority of Robert alone, not of the Dominican inquisitors generally. The explanation would seem to be that while the diocese of Bourges itself was in the North, adjoining that of Auxerre, the other dioceses of the province were in the South, where the Dominicans were working under different commissions. The copy in the cartulary breaks off about the middle, just before the word 'oculis.' On the authorship of this cartulary see Delisle, in the *B. E. C.*, lx. 7-44.

¹ At Saint-Pierre-le-Montier, not far from La Charité. Prévôt's account, Ascension term, 1234, in *H. F.*, xxii. 570J. From the documents published above it appears that Gile 'the abbess' was likewise in prison at this time. Heretics are also mentioned in the royal accounts of All Saints' term, 1234 (Sens), and Candlemas term, 1235 (Paris), in the *B. E. C.*, xxviii. 621 (cf. Tillemont, *Histoire de St. Louis*, ii. 292); and in the account of the King's household, Ascension term, 1234, in *H. F.*, xxi. 227F, 237B. Du Cange, under 'Bulgari,' interprets the words 'bougri' and 'bogrui' in such passages as meaning usurers. It is often difficult to determine in a given case whether the word refers to heresy, usury, or unnatural vice; one of these crimes was frequently supposed to involve the others.

² Albericus, *SS.*, xxiii. 936, speaks of Robert's activity as inquisitor 'throughout France' in 1234. But this is very doubtful, unless it applies to the beginning of the year. Chronological exactness is not always the strong point of this chronicler.

³ 'Simon de Sancto Germano, ad fratrem Robertum, pro baillivo Bithuricensi, xx. s.' Account of the King's household, Ascension term, 1234, *H. F.*, xxi. 233E. The date of the entry is 24 March or thereabouts, but there is no indication when the service was performed or just what its purpose was. The King had been at Bourges late in February and perhaps into March (*H. F.*, xxi, p. xxxv).

France and England,¹ and wrote to him on behalf of Florentine merchants who had been accused of heresy;² and in the following year he was restored to more active service.

With the exception of an episcopal admonition which has been preserved from the diocese of Thérouanne,³ existing records do not permit us to say whether the withdrawal of the Dominicans served as a stimulus to the episcopal Inquisition. Certainly whatever local efforts may have been made were insufficient to satisfy Gregory IX, and on 21 August, 1235, he re-established the Dominican Inquisition throughout France. With scarcely suppressed indignation at those who in certain provinces, where they alleged there were no heretics, had murmured against the conduct of the inquisitors, he declared that in every part of the kingdom the poisonous reptiles of heresy swarmed in such numbers that they could no longer be endured or concealed. Against their deceits he commands Robert, like a veteran soldier of the cross, prepared to meet even death in this great cause, to loose the reins of the Inquisition "throughout the provinces of Sens, Rheims, and the other provinces of the kingdom of France generally," proceeding with the advice of the bishops, his fellow Dominicans, and other experts (*sapientes*) so that the innocent should not perish or the guilty remain unpunished. The provincial prior was directed to appoint other friars to assist him, and the archbishop of Sens—and doubtless other archbishops—was ordered to co-operate actively with them and such others as might be selected for the purpose.⁴ Thus the papal

¹ Bull of 6 November: Auvray, no. 2185.

² Bull *Accurri* of 23 November, 'priori et fratri Roberto de ordine Predicatorum Parisiensibus': Auvray, no. 2221 (Potthast, no. 9772, following Ripoll, has 'fratri Raynerio'). There is also a bull of 20 November, 1234 (*Relatum est auribus*), relating to Florentine merchants, which is addressed 'Fratri R.' in the text of Ripoll (*Bullarium Ordinis Praedicatorum*, i. 71, no. 115; Potthast, no. 9766, and Auvray, no. 2216), as well as in the manuscript of the register, which I have collated at the Vatican; but reads 'Fratri Roberto ordinis Predicatorum Parisius' in the *Analecta Ordinis Fratrum Praedicatorum*, iv. 383.

³ Letter of 7 June, 1235, to the provost of St. Martin's at Ypres, with *vidimus* of the archbishop of Rheims: Fredericq, *Corpus*, i, no. 99. Perhaps the proceedings of the bishop of Noyon against Michel de Cerizy (see bull of 5 December, 1235, in Auvray, no. 2854) belong to this period.

⁴ Bull *Dudum ad aliquorum murmur*, to the provincial prior of the Friars

Inquisition was re-established in Northern France. Robert was made general inquisitor, he was particularly commended by the Pope, and the bishops were forced to act as his assistants. Under the new commission there were no limitations of place; it covered the whole of France and clothed the inquisitor with full power to proceed under the decrees of the Lateran council and the statutes of 1231.

Armed with his new authority, Friar Robert began a vigorous campaign against heresy among high and low. According to one chronicle his efforts extended over "various cities and towns of France, Flanders, Champagne, Burgundy, and the other provinces."¹ Besides La Charité,² our more specific information relates to Châlons-sur-Marne, where a number of heretics were burnt, notably a certain barber Arnolinus, "entirely devoted to the devil and offensive beyond measure,"³ and to the region of the North, where the persecution seems to have raged most violently.⁴ Apparently Robert began his work in this region by establishing his headquarters at Cambrai, which was not in

Preachers in France, 21 August, 1235 (Auvray, no. 2736; Potthast, no. 9993; Fredericq, *Corpus*, i, no. 100). Bull *Dudum*, to Friar Robert, 23 August (Auvray, no. 2735; Potthast, no. 9995; Fredericq, i, no. 101; also in abbreviated form, without date, copied from a MS. in the Ottoboni collection at Rome, in the B.N., Collection Moreau, 1193, f. 229). Bull *Quo inter ceteras* to the archbishop of Sens, 22 August (Auvray, no. 2737; Potthast, no. 9994; Fredericq, ii, no. 28).

¹ *Annales Sancti Medardi Suessionensis*, SS., xxvi. 522; Fredericq, *Corpus*, ii, no. 26. Delisle (*Histoire littéraire*, xxxii. 235 ff.) has shown that these annals are the work of Gobert de Coinci, from 1233 to 1254 prior of Vic-sur-Aisne. Their account of Robert's persecutions, though brief, is sober and accurate.

² The bull of 1263 in Guiraud, *Registres*, no. 1180, refers back to events of 1235.

³ Albericus, in SS., xxiii. 937; Fredericq, *Corpus*, ii, no. 24.

⁴ The fullest account of events in the North is contained in the chronicle of Mousket, who was a resident of Tournai, and unless otherwise indicated the narrative in the text is based upon his statements, vv. 28887 ff. Albericus (*l. c.*), and Matthew Paris (*Chronica majora*, iii. 361; SS., xxviii. 133) dismiss the subject very briefly, as do the continuators of André de Marchiennes (SS., xxvi. 215; *H. F.*, xviii. 559; Fredericq, *Corpus*, ii, no. 25) and Sigebert de Gembloux (SS., vi. 440), who give the same account, derived perhaps from a common source (cf. Waitz, in SS., xxvi. 204). The chronicle of Hainaut attributed to Baudoin d'Avesnes (*H. F.*, xxi. 166; SS., xxv. 455) has also a brief mention.

Two writers of the fourteenth century, Gilles de Muisit (de Smet, *Corpus chronicorum Flandriae*, ii. 150) and Jean d'Outremeuse (ed. Borgnet, v. 231)

France at all, but in the territory of the Empire.¹ We are told that he had with him an armed band from the king and that the bishop of Cambrai, Godefroi, who accompanied him also had an armed escort. Their progress through this region began at Péronne, where Pieron Malkasin and Matthieu de Lauvin, their wives, and Robert de Lauvin were burnt. Matthieu's pregnant daughter was also taken, but by the intercession of the French queen her life was spared on profession of orthodoxy.² Pieron's son fled to Valenciennes, but was caught and taken on to Cambrai. On the way back to Cambrai four seigneurs were burnt at Heudicourt.³ At Cambrai Robert had with him the archbishop of Rheims and the bishops of Arras, Cambrai, Tournai, and Noyon, and on the first Sunday in Lent⁴ a famous sorceress named Alice and some twenty others were burnt—"men of good cheer and in all manner courteous," says Mousket, "except for the fact that they did not believe in God."⁵ Among the notable victims were three who had been chosen *échevins* of the city. Eighteen others were left there in prison, three who recanted were condemned to wear the sign of the cross, and still others were taken on to Douai, where a number of heretics had

record the persecution of heretics in this period, but their statements have no particular value, as may be seen from the way in which Jean confuses Friar Robert with the more famous Dominican, Albertus Magnus. The extract from Dynter's *Chronica* given by Fredericq (*Corpus*, i, no. 104; Dynter, ed. de Ram, i. 564, 625) is merely a reproduction of the passage in the continuations of André and Sigebert. Frederichs' treatment of the Northern episode is particularly good.

¹ Cf. Baudoin d'Avesnes, *H. F.*, xxi. 166.

² Later in the reign of St. Louis it was the law that a pregnant woman condemned to death should not be executed before the birth of the child. *Livre de jostice et de plet*, p. 55.

³ 'Heldincourt.' There are various places in the vicinity of Cambrai with which this may be identified (cf. *H. F.*, xxii. 55). Holder-Egger, Frederichs, and Tanon incline to Élincourt (Nord, arrondissement Cambrai). I prefer Heudicourt (Somme, arrondissement Péronne, canton Roisel) which is directly between Péronne and Cambrai, and was anciently known as Heldincourt (cf. Paul de Cagny, *Histoire de l'arrondissement de Péronne*, ii. 723).

⁴ 17 February, 1236. As Frederichs has pointed out, both Waitz and Holder-Egger have confused the chronology of these events by forgetting that in this region the year began at Easter.

⁵ Vv. 28944 ff. On the number compare Albericus, SS., xxiii. 937. The story of a heretic of Cambrai, recounted by Thomas of Cantimpré, *Bonum universale de apibus*, ii. 57, no. 68 (ed. Douai, 1627, p. 592; cf. Fredericq, *Corpus*, i, nos. 106, 107) may relate to this persecution.

been collected to await the inquisitors' arrival. The proceedings at Douai were not unduly prolonged, for on the second of March, the second Sunday after the executions at Cambrai, ten heretics, old men and women, were led "out of the gate of Olivet, on the Road of the Lepers, which leads to Lambres" and there burnt in the presence of the countess of Flanders, the archbishop of Rheims, and the bishops of Arras, Cambrai, and Tournai.¹ Some, who professed themselves converted, had their heads shaved and were condemned to wear the cross, others were imprisoned "to repent and to stay."² At Lille and in the neighbouring villages of Ascq, Lers, and Toufflers,³ a number of heretics, amounting perhaps to a score,⁴ were burnt and others imprisoned. The persecution at Lille seems to have been particularly aimed at merchants and also at a certain Robert de la Galie, against whom Friar Robert was said to have a grudge because of a woman of Milan.⁵ In all, during a period of two or three months, about fifty had been burnt or buried alive.⁶

For the persecutions of the two following years our evidence is very scanty. In October, 1237, the Pope declared that heretics were rising more boldly against the vineyard of the Lord,⁷ but

¹ This specific account is given by a contemporary chronicle of the town, the *Notae Sancti Amati Duacenses* (SS., xxiv. 30; Fredericq, *Corpus*, i, nos. 98, 106). Cf. J. Buzelinus, *Gallo-Flandria* (Douai, 1625), i. 256, 279. Mousket is more general, vv. 28980-87, but likewise gives the number as ten. The persecution at Douai and Cambrai is also mentioned in the annals of Lobbes (Martène and Durand, *Thesaurus*, iii. 1427; SS., iv. 26; Fredericq, *Corpus*, i, no. 94); and in a local notice from Douai, published in Fredericq, *Corpus*, iii, no. 1.

² Mousket, v. 28987.

³ Nord, arrondissement of Lille. Cf. Frederichs, p. 19.

⁴ If we accept the statement of Albericus that a good thirty were burnt at Douai and thereabouts, and deduct the ten executed at Douai. Mousket, with whom Albericus agrees in the case of Cambrai, gives no figures for Lille. Cf. Fredericq, *Corpus*, iii, no. 3.

⁵ Mousket, vv. 28988-29005. Part of the passage, especially line 29000, is obscure and has perplexed all the editors. I cannot pretend to have any new light upon it.

⁶ Matthew Paris, *l. c.* This total agrees very well with the more detailed statements of Mousket and Albericus.

⁷ Bull of 6 October to the archbishops and bishops of France (Potthast, no. 10460). The allusion is to the "little foxes that spoil the vines" (Canticles, ii. 15), which in the Middle Ages, even by the Waldenses themselves, was interpreted to mean the heretics. Cf. Lea, i. 78, note.

no record of a condemnation appears in this year.¹ The royal accounts of this year, were they in existence, might tell us more. In 1238 these useful sources show us, in the roll for the Ascension term, that heretics had been convicted at Miraumont, near Péronne, and their goods to the value of eighty livres confiscated to the royal treasury.² Matthew Paris mentions under this year a general persecution by Robert, but this may very well be a confusion with the similar entry of two years before.³ Toward the close of the summer we find Robert at Paris, examining a witness in the case of the prior of Mazille, in the Nivernais, who was under charge of fautorship of heretics.⁴ A writer of the seventeenth century asserts that the Inquisition was established at Arras in this year, in the Dominican convent.⁵ Certain it is that at some time before 1244 Robert exercised his inquisitorial functions at Arras against Henri Hukedieu, a well-to-do wool merchant of the city.⁶

The climax of Friar Robert's career as an inquisitor was reached in May, 1239, at Mont-Aimé,⁷ an ancient seat of heresy

¹ In the "Annals of La Trinité de Vendôme" in the *E. H. R.*, xiii. 698, the 'combustio Bugrorum' ascribed to Blois under the year 1237 is apparently an error for 'combustio burgorum.'

² *H. F.*, xxi. 252 D.

³ *Chronica majora*, iii. 520 (SS., xxviii. 146).

⁴ 'Per idem tempus erat in Francia inquisitor hereticorum frater Robertus de ordine Predicatorum, qui fratrem Iodoinum priorem de Masiliis prosequabatur asserens eum esse fautorem hereticorum, ob quam causam dictus abbas [Regnaudus] accessit Parisius, ubi dictus frater Robertus morabatur, inde vero rediens apud Villam Novam Givardi obiit anno Domini MCCXXXVIII. nonis Septembris.' *Gesta Abbatum Autissiodorensium*, in Labbé, *Nova bibliotheca manuscriptorum*, i. 581. Cf. *Gallia Christiana*, xii. 387.

⁵ Fredericq, *Corpus*, ii, no. 29. See also Proville, *Histoire du couvent des Dominicains d'Arras* (B.N., MS. fr. 11620), pp. 387, 683, citing a modern MS. of the convent.

⁶ Letter patent of Asson, bishop of Arras, April, 1244 (or possibly 1245, since Easter in 1245 fell on 16 April), recognizing that Hukedieu had been excommunicated by Robert. Original, with traces of seal, in the Archives du Pas-de-Calais, A. 105. Published by Fredericq, *Corpus*, i, no. 121, from a cartulary at Lille.

On Henri Hukedieu see A. Jeanroy and H. Guy, *Chansons et dits Artésiens du XIII^e siècle* (Bordeaux, 1898), pp. 80, 121, 132; and A. Guesnon in the *Bulletin historique et philologique* of the Comité des travaux historiques et scientifiques, 1898, p. 192, and in the *Moyen âge*, new series, iv. 31.

⁷ Marne, arrondissement of Châlons, commune of Bergères-lez-Vertus. Cf. A. Longnon, *Dictionnaire topographique de la Marne*, p. 171, where the numerous

in Champagne where a crowd of suspected Manicheans, some of them probably merchants from the great May fair at Provins,¹ had been collected from all parts of the country. Their examination lasted the better part of a week, being attended by the archbishop of Rheims and ten of his suffragans, as well as by the bishops of Orleans, Troyes, Meaux, Verdun, and Langres, and "many abbots, priors, and deans,"² and ended on Friday, 13 May, in a "holocaust, very great and pleasing to God," in which more than a hundred and eighty Cathari were burnt, after receiving the sacrament of the *consolamentum* from their 'archbishop.'³ "And so," concludes Albericus, "as the story

variants of the name are given. The different mediaeval forms of this name have caused some confusion, and have even given one writer a lame excuse for doubting the fact of the great burning (*Histoire littéraire*, xviii. 249). On the early history of heresy at Mont-Aimé see Schmidt, *Histoire des Cathares*, i. 33, 411; F. Vernet, article "Cathares," in Vacant and Mangenot, *Dictionnaire de théologie catholique*, ii. 1990-91 (1905).

For the great *auto da fé* of 1239 we have the brief report of an eyewitness, the Dominican Étienne de Bourbon, in his *Anecdotes historiques*, ed. Lecoy de la Marche, pp. 150, 415 ('Cui sentencie ego interfui'). The fullest account is given by Albericus (SS., xxiii. 944-945; *H. F.*, xxi. 623), who lived in the same diocese. Mousket mentions the affair (vv. 30525 ff., omitted in the extracts in the SS.), as do also the Dominican annals of Erfurt (*Monumenta Erphurtensia*, ed. Holder-Egger, pp. 96, 235; Böhmer, *Fontes rerum Germanicarum*, ii. 400; SS., xvi. 33). It is also noted by two writers of a somewhat later date: Jean de Saint-Victor, in his *Memoriale historiarum* (B.N., MS. lat. 14626, f. 339 v; Quétif and Échard, *Scriptores Ordinis Praedicatorum*, i. 190); and Geoffroy de Courlon, *Chronique de l'abbaye de S. Pierre-le-Vif de Sens*, ed. Julliot (Sens, 1876), p. 518 (*H. F.*, xxii. 3; omitted in the extracts printed in the SS.). Through the kindness of Professor Grant Showerman, I have seen collations of the two MSS. of Geoffroy in the Vatican (Reg. lat. 455 and 480) which have not been used by the editors. The MS. of Sens on which the published text is based places the execution of heretics 'apud Moimerillonem,' which the editors of the *H. F.* identified with Montmorillon in the department of the Vienne. The Vatican MS. Reg. lat. 480, f. 117, has 'Moimer,' a common form of the name of Mont-Aimé.

¹ We know at least that Robert on one occasion summoned a merchant of Arras to appear before him 'in quibusdam nundinis de Campania' (Archives du Pas-de-Calais, A. 105; Fredericq, *Corpus*, i. no. 121), and the Erfurt annals mention expressly the nearness of Mont-Aimé to Provins. The May fair regularly began the Tuesday before Ascension (Bourquetot, *Les foires de Champagne*, i. 81; Alengry, *Les foires de Champagne*, p. 95), which in 1239 would bring it on 3 May, just before the trial of the heretics began.

² Albericus, who mentions the bishops by name.

³ On the *consolamentum* see Lea, i. 96, with the additional note in the French translation; and J. Guiraud, "Le *Consolamentum* ou initiation cathare," in his

runs that dogs once came from all directions and tore themselves to pieces in a battle at this same place, as a sort of prophecy of what was to be, so these Bougri, worse than dogs, were there exterminated in one day to the triumph of holy church." Not all of the ecclesiastical dignitaries remained for the end, but the count of Champagne and king of Navarre, Thibaut IV, was there with his barons, and the crowd present, of both sexes and all ages and classes, was estimated by Albericus, with characteristically mediaeval looseness in dealing with large numbers, at seven hundred thousand.¹

After the great *auto da fé* of 1239 comparatively little is known of Friar Robert's acts as an inquisitor. Like his contemporary pioneer of the papal Inquisition in Germany, Conrad of Marburg, Robert seems to have pursued his victims with a fury which bordered upon mania,² and it is not strange that a reaction occurred against the friar and his methods. It does not appear that this arose from any feeling of pity for the terrible end of those who persisted in their heretical beliefs; worse than dogs, their destruction was pleasing to God, declared the monk of Trois-Fontaines, and he had the thirteenth century with him.³ If the persecutions had been confined to those who were clearly guilty, it is not likely that serious protests would have been

Questions d'histoire et d'archéologie chrétienne (Paris, 1906), pp. 93-149. The different accounts are in strikingly close agreement as to the number. Albericus has 183, Mousket 187, the Annals of Erfurt 184. Étienne de Bourbon in one passage gives "about 180," in the other "more than 80"—the latter with an evident omission of the hundred. Jean de S. Victor has 180; Geoffroy de Courlon gives no number.

¹ Bourquelot in his *Histoire de Provins* (i. 183) says that the local antiquary Grillon speaks of similar executions at Troyes and Provins, but I have found no contemporary evidence.

² 'Un homicide maniaque' he is called by Langlois, in the *Histoire de France* of Lavissee, iii, 2, p. 73.

³ Albericus in SS., xxiii. 944. Still there were some who pitied the fate of heretics, as we learn from a general of the Dominicans, Humbert de Romans, in a work written for the instruction of preachers: 'In condemnatione hereticorum quando sententia fertur contra eos, solent publice homines convocari, et quia sunt multi qui quadam falsa pietate moventur circa eos et iudicant ecclesiam de nimia crudelitate circa illos, expedit in sermone publice ostendere quare ecclesia de hereticis plusquam de aliis peccatoribus diligentius inquirat, et quare gravius istos punit, et quare eos difficiliter ad penitentiam recipit.' *Maxima bibliotheca patrum*, xxv. 555.

made. According to Matthew Paris, however, Robert passed the bounds of moderation and justice, and in the pride of his power and of the terror that he inspired punished the simple and innocent along with the wicked. "Great numbers of innocent people were infatuated by him and then handed over to their death,"¹ until at length he was peremptorily removed from office by the Pope, and "when his crimes—which it were better not to mention—became known, he was condemned to perpetual imprisonment." What the dark deeds were which the monk of St. Albans prefers to pass over in silence our other sources do not enable us to say with much definiteness. The rare appeals from Robert's sentences relate only to the earlier stages of the inquisitorial procedure; they show his persistence in the pursuit of those upon whom suspicion of heresy had once rested, his arbitrariness and impatience of interference, but they tell us no more than this. One story, however, has come down to us unnoticed in the pages of a gossiping chronicler of the time, and the new light that it may serve to throw on the friar's methods justifies its quotation at some length.² In substance it runs as follows:

Robert had by magic art made a bit of writing (*cartula*) which when placed on any one's head compelled him to say whatever the friar desired. One day while preaching he was smitten with the beauty of a woman in the crowd, and when she refused to yield to him he threatened to have her burnt as a heretic. So approaching her in public he seized her and said, "Are you not a heretic?" She answered, "I am indeed." "Will you return to the Catholic faith?" "No." "Would you rather be burnt than recant?" "Yes." Whereupon he said, "You have all

¹ 'Tandem abutens potestate sibi concessa, et fines modestiae transgrediens et iustitiae, elatus, potens, et formidabilis, bonos cum malis confundens involvit, et insontes et simplices punivit. Auctoritate igitur papali jussus est praecise ne amplius in illo officio fulminando desaeviret. Qui postea, manifestius clarescentibus culpis suis, quas melius aestimo reticere quam explicare, adjudicatus est perpetuo carceri mancipari.' *Chronica majora*, ed. Luard, iii. 520; SS., xxviii. 147. 'Dicebatur . . . infinitos infatuasse et infatuatos innocuos incendio tradidisse.' *Ibid.*, v. 247; xxviii. 326. Cf. the *Historia Anglorum*, ed. Madden, ii. 415; SS., xxviii. 411.

² Richer de Senones, *Chronicon*, in SS., xxv. 307–308 (omitted in the edition of d'Achery): 'De magistro Roberto Parisiensi ordinis Predicatorum et fallaciis eius . . .' On Richer as an historian see Wattenbach, *Deutschlands Geschichtsquellen*, 6th ed., ii. 399.

heard how this woman has confessed her baseness." The bystanders were surprised and said they had never heard such a thing of her, and she was put in prison. The woman had a son, a well disposed youth and a clerk, who was much disturbed over his mother's dangerous position and went about among his neighbours and relatives seeking advice as to how he might get her free. A certain man who knew the friar well was moved by sympathy for the young man and said to him: "Go tomorrow to the public meeting where your mother will have her second examination. Stand near her, and when Master Robert places his hand on her and begins to question her on her belief, seize his hand, for you are stronger, and take away the writing which you will find in it. Keep it yourself, and ask him in a loud voice to examine your mother again." This was done, and when the clerk had taken the writing out of the friar's hand and his mother was questioned as before, she swore that she had never been examined by Master Robert concerning her faith and had never given him any answers at all, nor had she even heard what heresy was. Then the young man showed the writing to all and explained how by means of it Robert deceived whom he would and delivered them to death. When the people heard this, they tried to kill the friar, but he was carried off by the clergy and put in a stone prison perpetually closed. And because, in order to conceal his own iniquity, he had by such devices caused his father and mother and many other innocent people to be burnt, God imposed such a penalty on him in this life, if perchance he should turn from his evil ways while yet alive.

Whether Richer has here given us the real occasion of Friar Robert's downfall it is impossible to say, but if we substitute hypnotic suggestion for the *cartula*, there is nothing impossible in the story, and it agrees in a general way with the statement of Matthew Paris respecting the 'infatuation' of the innocent. With regard to the friar's imprisonment and subsequent fate two other accounts have been preserved, and while they form no part of the history of the Inquisition, their neglect by later writers¹ warrants their insertion here. In a chronicle attributed to Matthew Paris we read that Robert, after procuring the burning of many thousands in Flanders, was "at length, by the judgement of the members of his order—who condemn no one

¹ The passage attributed to Matthew Paris does not seem to have been used. That from Gérard de Frachet was printed in an out-of-the-way part of the *Scriptores Ordinis Praedicatorum* of Quétif and Échard (ii. 543), where it was noticed by Proville, *Histoire du couvent des Dominicains d'Arras* (B.N., MS. fr. 11620, pp. 420 ff.) and by Chapotin, *Histoire des Dominicains de la province de France*, p. 224.

to death—put in prison to do perpetual penance for his horrible crimes; but ultimately, by means of a large sum of money he succeeded in securing a papal dispensation which, to prevent further scandal, permitted him to be received as a canon of St. Victor.”¹ This is confirmed and supplemented by a collection of biographies of Dominicans compiled toward 1260 for circulation among members of the order, where Robert figures as a terrible example of the “evil end of apostates.”

There was a certain other man in France who had the office of inquisitor and was in such renown that almost the whole of France trembled before him and even the great held him in the highest reverence. Relying on his popularity, he became insolent and unwilling to govern himself by the advice of his elders, so that the friars at Paris kept him for a long time in bonds until his friends finally succeeded in inducing the Pope to have him released and received into another order. He joined first the brothers of the Trinity and then those of St. Victor, but having been expelled from each of these orders because of his evil deeds, he at last entered Clairvaux. Here he began with great honour, but when his wickedness—which God did not allow to remain hidden long—was discovered, he was reduced to a vile position in that monastery. And so, having been confounded before many, he died not long afterward in great shame and sorrow.²

¹ *Abbreviatio chronicorum Angliæ*, in Madden's edition of the *Historia Anglorum*, iii. 278; SS., xxviii. 448. On the authority of the Dominicans to imprison erring brothers see the *acta* of the general chapters of 1238 and 1240, *Acta capitulorum generalium Ordinis Praedicatorum*, ed. B. M. Reichert, i. 10, 16; and Potthast, no. 11089.

² Gerardus de Fracheto, *Vitae fratrum Ordinis Praedicatorum*, ed. Reichert (Rome and Stuttgart, 1897), p. 292. The author entered the order in 1225 and lived mostly at Limoges; the work was composed between 1256 and 1260, but touched up afterward. Cf. the introduction, p. xvi, and pp. 4 and 5 of the text. Although the passage plainly refers to Robert, his name does not appear in the MSS. given by Reichert; but Échard (ii. 543) states that the name appears in his own contemporary MS. One of the MSS. collated by Reichert adds that the friar began to sow discord at Clairvaux.

In view of this passage it is curious to see the efforts of certain modern Dominicans to clear Friar Robert's memory. Bremond in his notes to Ripoll (*Bullarium Ordinis FF. Praedicatorum*, i. 81) scolds Spondanus for accepting the statements of so untrustworthy a writer as Matthew Paris, whose works were interpolated by an heretical hand. Instead of being imprisoned later, Robert died at Saint-Jacques in 1235—“ut liquet ex priscis monumentis ejusdem conventus”! Choquet claims for him the glorious crown of martyrdom as the friar Robert who was killed at Avignonnet in 1242 (Fredericq, *Corpus*, i. p. 111). Proville (*l.c.*) thinks it unlikely that such a man as Robert could become suddenly perverted, believes him too old to have gone through so many religious

In the present state of our information it is not possible to determine accurately the date at which Robert le Bougre ceased to exercise his functions as inquisitor. If his commission was revoked by the Pope, the bull is not recorded in the papal registers, and if he was removed from office by a legate or by the general of the Dominican order,¹ the chances for the preservation of a documentary record are still less. As there is no notice of any condemnations made by Robert after the great burning of 1239, Lea² and Tanon³ assume that he fell from power in that year, while Frederichs⁴ places the date "about 1241." On the whole I am inclined to believe that he remained in office at least as late as 1244 or 1245. A careful contemporary chronicle states that the persecutions of heretics went on until 1241 and later.⁵ In the summer of 1242 a Preaching Friar Robert, of Saint-Jacques, appears as one of the executors of a will in

orders, and finally takes refuge behind the absence of his name from the MSS. of Gérard. A. Danzas (*Études sur les temps primitifs de l'Ordre de S. Dominique*, iv. 470 ff.) gives extracts from the very chapter of Gérard, but does not mention Robert. Chapotin (*l.c.*, p. 224) concludes that if Robert passed the bounds of justice and humanity, the Pope and the Dominican order did not fail to punish him. Échard alone, best scholar of them all, faces the facts squarely, declaring Robert 'hominem ab ordine extorrem, nec iam ex ordine memorandum' (*Scriptores Ordinis Praedicatorum*, ii. 543).

¹ The general of the Dominicans was authorized by a bull of 7 July, 1246, to remove inquisitors, even when they had been appointed by the Pope, and appoint others in their stead. Douais, *Documents pour servir à l'histoire de l'Inquisition en Languedoc*, p. xiv. A similar bull for the Franciscans had been issued in January of the same year (Potthast, no. 11993).

² *History of the Inquisition*, ii. 116; *Formulary of the Papal Penitentiary*, p. 53, note.

³ *Tribunaux de l'Inquisition*, p. 116.

⁴ *Robert le Bougre*, pp. 27, 32.

⁵ 'Non solum istud factum est in isto anno [1236] sed ante per tres continuos annos et post per quinque continuos annos et plus.' *Annals of St. Médard of Soissons*, SS., xxvi. 522.

In Lea's *Formulary of the Papal Penitentiary*, pp. 52 f., there is a letter addressed to "the archbishop of Sens and Friar R." concerning the penance of a follower of Simon de Montfort, who was to accompany Simon on his crusade. If we were to follow Bémont (*Simon de Montfort*, p. 12) in the statement that Simon took the cross after hearing of the defeat at Gaza, which occurred 13 November, 1239, the document would belong to the year 1240, before the month of June, when Simon set forth for the East (R. Röhrich, *Geschichte des Königreichs Jerusalem*, p. 850). However, a bull of 25 February, 1238 (W. H. Bliss, *Calendar of Papal Letters*, i. 167), shows that the crusade had been vowed as early as 1238.

Flanders,¹ and the following January we find mention, in a Paris document, of a "clerk of Friar Robert of the order of the Preachers."² Robert's fall is not referred to by Mousket, who died in 1244 or 1245,³ and indeed in April of one of these years the bishop of Arras gives notice of Robert's excommunication of Hukedieu.⁴ On the other hand it is known that the friar died before 1263,⁵ and from the account given of the various other orders through which he passed it is plain that he must have left the Dominicans several years before.

In tracing the career of Friar Robert as an inquisitor we have had little occasion to speak of those engaged with him in the task of hunting out and punishing heresy. By the Pope's commission he had been directed to proceed, "with the advice of prelates, other Dominicans, and experts,"⁶ and as a matter of fact he does not often appear as acting alone. There is, it is true, but scant mention of other Dominican inquisitors, acting either independently or as his associates,⁷ and the only known

¹ Testament of Arnoul d'Audenarde, June and August, 1242, in *Inventaire des archives de la Chambre des Comptes de Lille* (Lille, 1865), i. 307, nos. 740, 741.

² Brièle and Coyécque, *Les archives de l'Hôtel-Dieu de Paris*, p. 225, no. 466.

³ Pirenne, in the *Biographie nationale de Belgique*, xv. 329.

⁴ The date is April, 1244, but as Easter fell on 3 April in 1244, and on 16 April in 1245, the document may belong to either of these years. Archives du Pas-de-Calais, A. 105; Fredericq, *Corpus*, i, no. 121.

⁵ 'Quondam frater Robertus dictus Lepetit, tunc ordinis fratrum Predicatorum, in illis partibus inquisitor pravitatis huiusmodi.' Bull *Constitutus* of Urban IV, 29 October, 1263, in Chapotin, p. 224; Guiraud, no. 1180.

⁶ 'Cum prelatorum et fratrum tuorum religiosorum sapientumque consilio.' Bull *Dudum*, in Fredericq, *Corpus*, i, no. 101; Potthast, no. 9995; Auvray, no. 2735. On the advisers of inquisitors in general see C. Henner, *Beiträge zur Organisation und Kompetenz der päpstlichen Ketzergerichte* (Leipzig, 1890), pp. 138 ff.; de Cauzons, ii. 111-119.

⁷ A Dominican friar Jacques was with Robert in Champagne early in 1234 (see the document printed above, p. 215), and a Franciscan acted with him in one instance at La Charité (Auvray, no. 2825, Potthast, no. 10044). Robert and the Paris prior also receive a joint commission of inquiry in one case (Auvray, no. 2221; Potthast, no. 9772). The only examples of independent action I have found are at Troyes, where the Dominican prior and a Franciscan of the same city appear as assigning penance (bull of 11 March, 1236, Auvray, no. 3006; Potthast, no. 10114), and at Arras, where a modern history of the Dominican convent mentions Pierre Danvin, or Darwin, as inquisitor in 1238 (Proville, *Histoire du couvent des Dominicains d'Arras*, B.N., MS. fr. 11620, pp. 387, 683). The case at Troyes must have been subsequent to 1232, when the

instance of the employment of an 'expert' is the presence at Châlons of the chancellor of the University of Paris, Philip, an eminent theologian and a staunch upholder of orthodoxy;¹ but there is abundant evidence that the bishops of Northern France were actively associated in the work of the Inquisition. At Cambrai, besides the bishop of the diocese, Robert had with him the archbishop of Rheims and the bishops of Arras, Tournai, and Noyon,² and all of these, except the last-named, were likewise present at Douai.³ At Mont-Aimé the number of prelates was so great that Albericus enumerates sixteen and an eye-witness speaks of the presence of "almost all of the bishops of France."⁴ Furthermore, it is plain from the words of the chroniclers that the presence of the bishops was not merely formal, but that they conducted the examination of the accused. We have specific statements to this effect relative to the persecutions at Cambrai and Mont-Aimé,⁵ and the annals of Saint-Médard sum up the whole matter accurately when they say that "by the instrumentality of a certain preaching friar Robert, a great multitude of heretics was taken, examined, and convicted by archbishops, bishops, and prelates of the other ecclesiastical degrees."⁶ Whatever may have been the practice in less celebrated cases, it is clear that the responsibility for the great burning of heretics in the North and in Champagne rests with the leaders of the French clergy quite as much as with the terrible friar.

Of the independent action of the bishops in the pursuit of heresy, the episcopal Inquisition proper, we hear very little in

Dominicans were established there (Chapotin, *Histoire des Dominicains de la Province de France*, p. 179).

¹ Albericus in SS., xxiii. 937. Cf. Chapters II and XI.

² Mousket, vv. 28915, 28958-61.

³ SS., xxiv. 30.

⁴ 'Fere omnes episcopi Francie.' Étienne de Bourbon, *Anecdotes historiques*, p. 150, and cf. p. 415. See further Albericus in SS., xxiii. 944, and Mousket, vv. 30535, 30536. Other examples of bishops associated with Robert are those of Clermont (Auvray, no. 2825; Potthast, no. 10044), Cahors (probably; Lea, *Formulary of the Papal Penitentiary*, no. 35, 1), and Arras (Fredericq, *Corpus*, i, no. 121, and note), the archbishop of Sens (Lea, no. 35, 2), and the archbishop of Sens and the bishop of Troyes (Potthast, no. 10114; Auvray, no. 3006).

⁵ Mousket, v. 28885; Étienne de Bourbon, p. 415. Cf. Albericus in SS., xxiii. 945.

⁶ SS., xxvii. 522.

Northern France, either in the time of Friar Robert or later.¹ The absence of records is probably due in the first instance to the lack of any noteworthy proceedings to record, at least at a time when the papal inquisitor was taking the initiative so vigorously and the bishops were so busily occupied in considering the cases which he brought before them; and yet, if the sources permitted a study of the relations of the papal Inquisition to the local ecclesiastical authorities, we should probably hear more of the local jealousies of Dominican interference whose faint echoes reach us in the papal documents of the period.² The duties of the bishops in the suppression of heresy did not cease with the establishment of the Dominican Inquisition, and some effort was certainly made to put new energy into the episcopal machinery for the detection and punishment of misbelief. In 1239 the provincial council of Tours sought to revive the old institution of the synodal witnesses by prescribing the appointment in each parish of three persons sworn to reveal all offences concerning the faith.³ Somewhat later, councils of the province of Sens decided to coerce obstinate excommunicates by bringing them before the council as heretics.⁴ From the diocese of Tournai there has been preserved a proclamation against heresy, written in the Romance tongue, which was to be read in the parish churches every other Sunday,⁵ and in the

¹ The material for the episcopal inquisition in the Netherlands in this period has been collected by Fredericq, *Geschiedenis*, i, ch. 6. Cf. de Cauzons, ii, 121-124.

² Bulls *Dudum ad aliquorum murmur* and *Quo inter ceteras* of 1235. Auvray, nos. 2735-37; Potthast, nos. 9993-95; Fredericq, *Corpus*, i, nos. 100, 101; ii, no. 28. For the late thirteenth century see Fredericq, *Geschiedenis*, i, 68-71.

There were also differences among the secular clergy, so that in a controversy with his suffragans the archbishop of Rheims even went so far as to assert that some of them were tainted with heresy (P. Varin, *Archives administratives de Reims*, i, 675; Potthast, no. 12062), but there is no evidence that the charge was substantiated.

³ Mansi, *Conciliarum collectio*, xxiii, 497; Hefele-Knöpfler, v, 1083. Cf. also the council of Trier in 1238, in Fredericq, *Corpus*, i, no. 115, and for the South the councils cited in Hinschius, *Kirchenrecht*, v, 449, note 4.

⁴ Concilium Parisiense, 1248, c. 20; Concilium Pruvinese, 1251. Mansi, xxiii, 768, 793; Hefele-Knöpfler, v, 1151; vi, 45.

⁵ Fredericq, *Corpus*, i, no. 158 (undated, but evidently of the thirteenth century).

adjoining diocese of Thérouanne we find the bishop instructing the parish priests to see that the people do not fall under suspicion of heresy by remaining away from church.¹ Some actual cases of the pursuit of heretics by the bishop are also found, in the diocese of Troyes² and in the diocese of Noyon, where in 1235 a priest was kept in close confinement in spite of his vigorous assertions of orthodoxy and proffers of proof,³ while a few years later the bishops of Cambrai, just over the northern frontier, showed their zeal for the suppression of heresy and social discontent at Antwerp.⁴ At Paris, too, the bishops and the masters of theology kept a careful watch against theological error,⁵ and the bishop's prison awaited those who persisted in upholding forbidden doctrines,⁶ while the time was coming when the University of Paris would virtually supplant the Inquisition as an agency for the maintenance of orthodoxy in France.⁷ Still, when all known instances of such sporadic local activity are enumerated, they make a small showing in comparison with the persistent labours of the papal inquisitors.

When we turn from the external history of the persecutions of heretics by Friar Robert and his associates to an examination of their procedure and the penalties which they inflicted, we are embarrassed by the scarcity of evidence and its one-sided character. An occasional summons, a few appeals from sentences in which appellants state their version of the case to the Pope, some forms of the papal penitentiary, and the incidental state-

¹ Fredericq, *Corpus*, i, no. 99 (1235).

² Lea, *Formulary of the Papal Penitentiary*, no. 37, 2.

³ The case of Michel de Cerizy: Auvray, no. 2854.

⁴ Fredericq, *Corpus*, i, nos. 125, 126, 133; *Geschiedenis*, i, 84.

⁵ See the notices of errors condemned in 1241, *Chartularium Universitatis Parisiensis*, i, no. 128; in 1247, *ibid.*, no. 176; in 1270, *ibid.*, no. 432; and in 1277, *ibid.*, no. 473. Cf. also no. 522 and the documents relating to the condemnation of the Talmud, especially no. 178. On the condemnations of 1270 and 1277 see Mandonnet, *Siger de Brabant*, and L. Thorndike, *History of Magic and Experimental Science* (New York, 1923), ii, 707-712, 869. Cf. M. Grabmann, *Munich S.B.*, 1924, no. 2.

⁶ *Chartularium*, i, no. 176. It is worth noting that the papal legate who acted when Master Raymond was condemned the second time uses the phrase 'de bonorum consilio,' so common in the inquisitorial documents of the South.

⁷ Lea, ii, 135 ff.

ments of the chroniclers constitute our only sources.¹ This material is too fragmentary to serve as the basis of a special study of the methods of the Inquisition, yet it is valuable so far as it goes and has been little used by the general writers on the subject;² and, for the sake of comparison with the course of the papal Inquisition elsewhere and with the earlier practice in Northern France, it may be worth while to bring together what may be learned of the procedure of the Inquisition in the North in the time of Gregory IX.

On his first visit to La Charité Friar Robert began with the usual preliminary sermon³ exhorting heretics to return to the faith, with the result, so he tells us, that not only those who were specially summoned, but many who did not wait for his summons and some who were not even suspected, came forward

¹ The only cases in which we have any extended account of Robert's method of procedure are: At La Charité, the appeals of Pierre Vogrin (Sbaralea, *Bullarium Franciscanum*, i. 177; Auvray, no. 2825; Potthast, no. 10044) and Petronilla (Auvray, no. 3106) and the petition of Jean Chevalier (Chapotin, *Histoire des Dominicains de la province de France*, p. 224), all of them statements by the accused (cf. also the appeal of a certain M. of the diocese of Cahors in Lea, *Formulary of the Papal Penitentiary*, no. 38, 2). At Arras the excommunication of Hukedieu (Archives du Pas-de-Calais, A. 105; Fredericq, *Corpus*, i, no. 121), where Robert's proceedings are described by the excommunicating bishop. At Paris (?) Richer's story of the woman who was compelled by magic to make a false confession (SS., xxv. 307). For the procedure of the episcopal Inquisition in the same period we have only the case of the bishop of Noyon and Michel de Cerizy (Auvray, no. 2854); the earlier cases at La Charité should of course be compared.

² On the procedure of the Inquisition in general see Lea, i. 399 ff.; Tanon, pp. 326 ff.; Hinschius, v. 481 ff.; Douais, *L'Inquisition*, pt. 2; de Cauzons, *Histoire de l'Inquisition en France*, ii. Important information on the early procedure of the papal Inquisition is afforded by certain consultations of the papal penitentiary, Raymond de Peñafort, relative to the treatment of heretics in the province of Tarragona. See the *Moyen âge*, 2d series, iii. 305-325; and *Raymundiana* (*Monumenta Ordinis Praedicatorum*, vi), ii. 41, 73. For Languedoc, in the years 1250-67, see the elaborate study of the workings of the Inquisition at Carcassonne in Molinier, *L'Inquisition dans le Midi de la France*, pp. 273-451; the register of the *greffier*, upon which Molinier's account is based, and the important *Sentences* of Bernard de Caux and Jean de S. Pierre (1244-48) have since been published by Douais in his *Documents pour servir à l'histoire de l'Inquisition dans le Languedoc*.

³ On which see Tanon, p. 329; Hinschius, v. 458, note 3, 481. Forms of citation to such a sermon may be seen in Martène and Durand, *Thesaurus*, v. 1810; and in the *Nouvelle revue historique de droit*, 1883, p. 671.

to confess their error and undergo penance. Information was freely offered against others, parents even "denouncing their children and children their parents, husbands their wives and wives their husbands." Robert had as yet no special authority in France, but in the commission which he soon received from the Pope indulgence was promised to all who attended his preaching and assisted him in his work.¹ Prompt confession, where no accusation had been made, relieved the heretic from further pursuit, only a moderate penance being exacted;² and information against others was so much desired that, even after sentence of death had been pronounced, a reprieve might be granted on promise of producing other victims.³ From all accounts, Robert lent a ready ear to all accusations, and when his suspicions had once fastened on any one it was difficult to secure release. At La Charité we have already seen his relentless pursuit of Pierre Vogrin, who had been twice acquitted by the episcopal Inquisition,⁴ and the same unwillingness to accept the findings of his predecessors was shown in the case of a certain Petronilla of the same town who also offered canonical purgation without success.⁵ Particularly in the case of merchants, whose wandering life and close relations with Italy and Southern France made them natural objects of suspicion, did the papal Inquisition exercise unusual watchfulness. Thus a Florentine merchant, after talking with certain heretics whom he supposed to be orthodox and giving their servants ten sous, first confessed to a Dominican and a Franciscan at Troyes, who assigned him penance; he then consulted the Pope, who after referring the matter to the bishop of Florence and receiving his report, approved by a cardinal, respecting the merchant's unblemished reputation in Italy for purity of faith, still found it necessary, after imposing penance, to have his orthodoxy further

¹ Bull *Gaudemus*: Fredericq, *Corpus*, i, no. 90.

² 'Si predictus G. non accusatus nec convictus sed sponte confessus est et suum confitetur errorem et ea que exiguntur in talibus, abiurata prorsus heretica pravitate, de absolutionis beneficio iuxta formam ecclesie provideatis eidem, iniungentes ei penitentiam salutarem et alia prout in similibus censure debite modus et ordo deposcunt.' Lea, *Formulary*, no. 35, 1; Tours, MS. 594, f. 29 v, no. 141.

³ Albericus, in SS., xxiii. 945.

⁴ Potthast, no. 10044; Auvray, no. 2825.

⁵ Auvray, no. 3106.

investigated in France by Friar Robert, the archbishop of Sens, and the bishop of Troyes.¹ A man from the diocese of Cahors who had once consorted with heretics and listened to their preaching confessed his error to the local authorities and was admitted to penance, but on coming north he was accused of heresy by his enemies and put in prison by Robert in spite of the letter of security which he carried.² Another case is that of Jean Chevalier, of La Charité, who had consorted with a woman suspected of heresy; though he established his own soundness in the faith upon examination, he was nevertheless condemned to an elaborate public penance, with the further threat that if he ever took usury or visited Lombardy he would be considered as a heretic and treated accordingly.³

The manner of citation before the inquisitors is illustrated most fully in a case from the later years of Friar Robert's activity, the facts being related by the bishop of Arras on the testimony of parish priests of his diocese, who constituted the usual intermediary between the inquisitor and the suspected party.⁴ Robert proclaimed several times that the accused, a wool merchant named Henri Hukedieu, should appear before him at a place which he was ready to designate and should there answer the questions which the friar desired to propound; then in a public sermon a certain fair in Champagne was set as the time for the merchant to appear and establish his innocence, and after the time had elapsed without his coming, Robert excommunicated him as a heretic in a public sermon at Arras.⁵

That a formal examination preceded conviction is often stated

¹ Bull *Ildebrandiscus* of 11 March, 1236, printed in Sbaralea, *Bullarium Franciscanum*, i. 188; *Raymundiana*, ii. 49; Potthast, no. 10114; Auvray, no. 3006. Similar bull of 23 November, 1234 (*Accurri . . .*) in *Raymundiana*, ii. 27; Auvray, no. 2221; Potthast, no. 9772. There are a number of papal bulls of this period for the protection of Italian merchants in Northern France, e.g., Auvray, nos. 2842, 2843, 2857, 2764.

² Lea, *Formulary*, no. 38, 2; Tours, MS. 594, f. 30 v, no. 148.

³ Bull *Constitutus*, in Chapotin, p. 224, and Guiraud, no. 1180.

⁴ Cf. Tanon, p. 340; Henner, *Ketzergerichte*, p. 292. An order from the bishop of Auxerre to a priest of La Charité to summon a suspected person (1233) is cited in Lebeuf, *Mémoires concernant l'histoire d'Auxerre* (ed. Challe and Quantin), i. 411.

⁵ Fredericq, *Corpus*, i, no. 121.

by the chroniclers,¹ who sometimes describe the beliefs to which the heretics confessed,² but leave us very much in the dark as regards the nature of the proceedings. Usually, as we have seen, bishops were present and took an active part in the examination, but in two cases of which we know Robert appears to have conducted the trial alone. The woman of La Charité, Petronilla, was required to prove her assertion of innocence by the oath of three compurgators, but when she appeared for this purpose the friar declared that she had failed and put her in prison, along with her son-in-law, whose purgation had formerly been accepted.³ In Richer's story of the proceedings in the case of the woman under the influence of the *cartula* we have a case of enforced confession. Robert approaches her suddenly in public with the questions: "Are you not a heretic?" "Will you return to the Catholic faith?" "Would you rather be burnt than recant?" She admits the charges, whereupon he calls the bystanders to witness her statements and puts her in prison. The same questions are repeated at a second examination, which is likewise public.⁴ With the exception of these instances and the general statement of Matthew Paris that Robert punished the innocent as well as the guilty,⁵ we know nothing of the rigour of the examination or the frequency of acquittal. It is at this stage in the proceedings, between accusation and conviction, that such appeals as have come down to us were lodged with the Pope. From an inquisitorial condemnation for heresy no such appeal was possible,⁶ but in three of the cases we have been considering an appeal to the Pope was taken before sentence was pronounced, and in all three the Pope orders further investigation. In each instance, in addition to the innocence of the accused, some irregularity in the proceedings was alleged—either imprisonment in spite of a letter of protection,⁷ or refusal to accept compurgation, followed by arbitrary im-

¹ See the passages cited above, apropos of the participation of the bishops.

² Étienne de Bourbon, *Anecdotes historiques*, p. 149; Albericus, in *SS.*, xxiii. 945.

³ Auvray, no. 3106.

⁵ *Ibid.*, xxviii. 147, 326.

⁷ Lea, *Formulary*, no. 38, 2.

⁴ *SS.*, xxv. 307.

⁶ Tanon, p. 435; Hinschius, v. 467.

prisonment,¹ or in one case the violation of an agreement which had been made to guarantee a fair hearing, and excommunication after appeal had been taken.²

Impenitent heretics, after they had been condemned by the church, were regularly handed over to the secular power to suffer their 'due punishment' of death by burning. Whatever the origin of capital punishment for heresy in the Middle Ages, whether it was inherited from the legislation of the Roman emperors or was introduced from the popular practice of the Germanic nations,³ by the middle of the thirteenth century the stake had become the regular penalty in Northern Europe, a penalty which prefigured, it was declared, the unquenchable fire of the world to come.⁴

Those who repented of their heresy were admitted by the church to undergo penance.⁵ The most severe form, reserved

¹ Auvray, no. 3106.

Pierre Vogrin; Potthast, no. 10044.

³ The theory of the Germanic origin of the laws for the execution of heretics is worked out in the classical monographs of Ficker, "Die gesetzliche Einführung der Todesstrafe für Ketzerei," in *M. I. O. G.*, i. 177-226, 430, and Havet, *L'Hérésie et le bras séculier au Moyen-Âge*, in the *B. E. C.*, xli. 488-517, 570-607 (and in his *Oeuvres*, ii. 117-180). Their results have been accepted by Lea (i. 222), Fredericq (*Geschiedenis*, i, chs. 7-9), Hinschius (*Kirchenrecht*, v. 379), and Joseph Hansen (*Zauberwahn, Inquisition, und Hexenprozess*, pp. 220 ff.). The Roman origin of the penalty is upheld by Tanon, pp. 441 ff. (Cf. also P. Viollet, *Établissements de S. Louis*, i. 253; and P. Guilhaume in *B. E. C.*, lv. 383.) For further discussion see Maillet, *L'Église et la répression sanglante de l'hérésie* (Liège, 1909); de Cauzons, i. 279-315; Charles Moeller, "Les bûchers et les auto-da-fé de l'Inquisition depuis le moyen âge," in *Revue d'histoire ecclésiastique*, xiv. 720-751 (1913).

⁴ Philip, chancellor of the University of Paris, says of the baker Echard of Rheims burnt in 1230: 'Translatus est ad furnum temporalis pene et deinde ad furnum gehenne' (Hauréau, vi. 241; cf. Chapter XI, *infra*). Caesar of Heisterbach (ed. Strange, i. 298) and Guillaume le Breton (*Philippis*, i. 418 ff.) use similar phrases. So also John of Garland, *De triumphis ecclesiae*, ed. Wright, p. 79:

De morte hereticorum mala.

Excrecit fatua ficus, ficulnea mundi

Quam paris, hanc urit flamma, gehenna cremat.

Latrantes et aves direpta cadavera rostris

Asportant, animas nigra caterva legit.

So the chancellor of Paris, Eudes de Châteauroux, says (Arras, MS. 137, pp. 305 f.): 'Consummatio hereticorum et in presenti et in futuro ignis est. In presenti ignis corporalis, quia comburuntur ad ostendendum magnitudinem peccati . . . In futuro consummatio eorum erit ignis gehennalis qui non extinguetur.

⁵ On the penances of the Inquisition see Lea, i, ch. 12; Tanon, pp. 479 ff.;

for those who repented from fear of death, consisted of perpetual imprisonment, either in the milder form of detention within the prison walls (*murus largus*) or in the harsh solitary confinement of a narrow cell (*murus strictus*), where in many cases the prisoner was also chained to the wall.¹ A less severe but exceedingly humiliating form of punishment, often substituted for imprisonment, was the *poena confusibilis* of wearing some conspicuous sign of infamy, such as a yellow cross on the breast and back. For lesser degrees of guilt the ordinary penances of pilgrimages and pious observances could be prescribed in the discretion of the judge. In the case of priests the more serious punishments for heresy were preceded by degradation from orders, but so great was the difficulty of getting together the number of bishops canonically required to perform this act that it was early found necessary to simplify and expedite the procedure so that the diocesan might act alone with the advice of such as he might summon from his diocese.²

These general principles of inquisitorial practice Friar Robert seems to have observed. "Many he consumed with avenging flames, many he handed over to perpetual prison," says one chronicler.³ Another states the distinction more exactly: "Some were shut up in prison to do penance, others who refused to renounce their heresies were consumed by fire."⁴ Burial alive

de Cauzons, ii. 288 ff. Besides the texts there cited see Lea, *Formulary of the Papal Penitentiary*, pp. 50-60; and the manual of procedure prepared by the archbishop of Tarragona in consultation with the papal penitentiary, Raymond de Peñafort, published by Douais in the *Moyen âge*, 2d series, iii. 305-325.

¹ For an early instance of close confinement see the bull of Gregory IX to the abbot of La Cava, 4 March, 1231: Auvray, no. 562; Potthast, no. 8672.

² The undated bull of Gregory IX to this effect which was inserted in the canon law (c. i in Sexto, v. 2) was probably called forth by some case in Northern France in this period, since it is addressed to the archbishop of Rheims and his suffragans and since its omission from the *Decretals* indicates that it was issued after their publication in September, 1234. There are earlier bulls to the same effect addressed to the bishop of Strasbourg, 19 October, 1232 (Auvray, no. 933; Rodenberg, *Epistolae*, i, no. 485), to the archbishop of Bremen, 12 November, 1232 (Potthast, no. 9042), to the archbishop of Salzburg, 22 November, 1232 (Winkelmann, *Acta imperii inedita*, i. 504; Potthast, no. 9046), and to the prelates of Southern France, 19 April, 1233 (MS. Doat xxxi. 19; Potthast, no. 9356). Cf. also Hinschius, *Kirchenrecht*, v. 61, note 1.

³ SS., vi. 440; xxvi. 215.

⁴ SS., xxvi. 522.

is mentioned by one chronicler,¹ but in the account of the persecutions in the North, where fifty met their death, at Châlons, and at Mont-Aimé, it is expressly stated that the heretics were burnt. We have specific mention of the use of imprisonment as a penalty at Douai, in the region of Lille,² and at Cambrai, where the number left in prison, variously stated at eighteen and twenty-one, was almost exactly equal to the number burnt.³ The *poena confusibilis* also appears at Cambrai, where three women were 'marked,' and at Douai, where the penitents were shaved and sentenced to wear crosses.⁴ At La Charité one of the first results of Robert's preaching was the great number of people who appeared voluntarily before him for penance, having already placed wooden collars or chains about their necks.⁵ Of the less rigorous forms of penance few examples have been preserved. There is an instance of exile to Constantinople,⁶ and one man who had made voluntary confession was ordered to take the cross and accompany Simon de Montfort to the East, as well as to attend divine service whenever opportunity offered and to lay aside linen and fast every Friday for the rest of his life.⁷ At La Charité Robert, besides prescribing religious observances of this character, publicly forbade penitents to carry arms or take usury or go into Lombardy, under pain of being condemned as heretics.⁸

The practice of the Inquisition in Northern France also illustrates certain of the secondary consequences of conviction for heresy—civil and ecclesiastical disabilities, destruction of

¹ SS., xxviii. 133. Frederichs seeks to interpret the words 'vivos sepeliri' as merely a slightly exaggerated way of describing the close imprisonment of heretics, but Tanon has shown that burying alive was not an unknown form of punishment in the thirteenth century. *Tribunaux de l'Inquisition*, p. 117; *Histoire des justices des anciennes églises de Paris*, pp. 29–33 (for an instance of its employment to punish unnatural vice see Lea, *Formulary*, no. 16). It should be observed that the totals would be far too small if the imprisoned were reckoned in.

² Mousket, vv. 28986, 29006.

³ *Ibid.*, v. 28966; Albericus, in SS., xxiii. 937.

⁴ Mousket, vv. 28964, 28984, 28985.

⁵ Fredericq, *Corpus*, i, no. 90.

⁶ Mousket, vv. 29002, 29003.

⁷ Lea, *Formulary*, no. 35, 2; Tours, MS. 594, f. 29 v, no. 142. For a similar penance imposed by the bishop of Troyes, see Lea, no. 37, 2 (where the rubric should read 'crimine' instead of 'elemosine'); Tours, MS. 594, f. 30, no. 146.

⁸ Bull *Constitutus*, in Chapotin, p. 224; Guiraud, no. 1180.

houses, and confiscation of property. The papal statutes of 1231 excluded the sons and grandsons of heretics from holding ecclesiastical offices or benefices,¹ but in a case from the diocese of Tournai it was held that this provision was not retroactive,² and dispensations from the disability might be granted.³ It was a further principle of the legislation against heresy that the houses of heretics should be destroyed and their sites remain deserted, but as this seriously diminished the profits arising from the confiscation of heretics' property, it was not rigidly enforced.⁴ The forfeiture of the property of heretics, inherited from the Roman law of lese-majesty, had been accepted as a principle by the church as early as the time of Innocent III. Conviction of heresy regularly carried with it confiscation, the property becoming at once subject to seizure by the secular power.⁵ The various applications of this principle, which presented a constant temptation to the cupidity of princes and was ultimately made to furnish the means for the support of the Inquisition itself, it is not necessary to follow out here. In France confiscation is decreed against the heretics of the South by the legislation of Louis VIII and Louis IX,⁶ and while no similar ordinance has been preserved for the northern portion of the kingdom, the customary law of this region explicitly states that the pro-

¹ Fredericq, *Corpus*, i, no. 79. The statutes mention other disabilities as well.

² Lea, *Formulary*, no. 41; Tours, MS. 594, f. 31, no. 151. On the date cf. Fredericq, *Corpus*, ii, no. 21.

³ Case of a monk of La Charité in Lea, *Formulary*, no. 40, where the address should begin, 'De Caritate priori'; Tours, MS. 594, f. 31, no. 150.

⁴ See in general Lea, i. 481-483; Tanon, pp. 519-523; de Cauzons, ii. 336-340. Douais, in the *Revue des questions historiques* for October, 1881, p. 411, cites an order of 1329 for the destruction of houses at Carcassonne (*Cabinet historique*, xi. 163) as "the first, and perhaps the only, sentence of the sort"; but as early as 1255 Alexander IV had permitted the prior and convent of La Charité, as temporal lords of the town, to rebuild houses which had been destroyed by order of papal inquisitors. C. de La Roncière, *Registres d'Alexandre IV*, no. 817. Indeed, the destruction of houses is ordained against receivers of heretics in the Assize of Clarendon, 1166 (Stubbs, *Select Charters*, 9th ed., 1921, p. 173); and the Pipe Roll of the following year (13 Henry II) has various references *de domibus fractis super assisam*.

⁵ On confiscation see Lea, i, ch. xiii.; Tanon, pp. 523 ff.; and the references in Henner, *Ketzergerichte*, p. 232.

⁶ *Ordonnances des rois*, xii. 319; i. 50.

perty of the condemned heretic goes to his lord.¹ The heirs of the heretic lost all share in his estate, but both king and Pope sought to protect the dower rights of orthodox wives,² and there exists, from Friar Robert's time, a decision of the king's court regulating the respective rights of wife and lord.³ That the king derived pecuniary profit from the property of heretics in Northern France is shown by entries in the royal accounts of the period,⁴ but the sums there collected were paltry enough in comparison with the proceeds of confiscation in Languedoc.⁵

Any consideration of the relation of the secular power to the Inquisition in Northern France must necessarily be brief

¹ *Livre de justice et de plet*, p. 12; *Établissements de Saint-Louis*, ed. Viollet, ii. 147; iii. 50; Beaumanoir, ed. Salmon, § 833.

² Ordinance of 1259 in the *Histoire générale de Languedoc*, viii. 1441, and *Ordonnances des rois*, i. 63. Bull. of Gregory IX of 1238 cited in Tanon, p. 532; Innocent IV in c. 14 in Sexto, v. 2. In 1269 the dower of the widow of a certain 'Henricus Bougrius' was charged against the royal treasury (roll of the *bailliage* of Amiens, *B. E. C.*, xxviii. 621). For definition of the conditions under which the wife might claim, see *Livre de justice et de plet*, p. 13, and cf. A. Beugnot, *Olim*, i. 579.

³ 'Li jugement des Bougres qui furent ars au tans frere Robert. Si fu teus fais en le cort le Roy Loeys de France que tout li Aretage ki viennent naissant de par le Bougre qui est jugé a ardoir vif doivent demourer quitement au Seigneur dont il muet, sauf cou que li feme de ce Bougre si a sen douaire tant quele vit, et après se mort revient au Seigneur dont il muet <sauf cou que li feme de ce bougre si a sen douaire tant quele vit, et après se mort revient au Seigneur> perpetuellement; et en tous les aquests kil ont acquis ensanle li feme et si oirs en ont la moitié, et li sires lautre moitié, et en cele moitié doit li feme avoir sen Douaire tant quele vit, et après sen décès doit venir au Seigneur dont li iretages muet.' *Livre Rouge de Saint-Vaast*, f. 157 of the modern copy in the Archives du Pas-de-Calais at Arras (H. 2); now in Fredericq, *Corpus*, iii. no. 2.

⁴ *H. F.*, xxi. 237, 252. Cf. the *Annals of S. Médard*, SS., xxvi. 522.

Among the others who benefited by confiscations in the North we find the count of Champagne (see the documents on Gile printed on p. 216, where the count's right is disputed by the collegiate church of Saint-Quiriac at Provins), and the prior of La Charité as temporal lord of the town (La Roncière, *Registres d'Alexandre IV*, no. 817). On the practice in the case of condemned ecclesiastics there is little evidence in the early period; the only case I have found in the North is in the diocese of Noyon, where the bishop took the horse and perhaps other personal effects of the accused (Auvray, no. 2854).

⁵ See Douais, *Documents*, pp. ccxv, ccxxvii. An example of the sums which confiscation might yield is afforded by the inventory of the property of certain heretics of the south in 1261, which gave a net return of 1413 livres 9s. 10d. to the treasury. 'Bona Petri Bermundi,' Archives Nationales, J. 306.85, published in part in the fourth volume of the *Layettes du Trésor des Chartes* (Paris, 1902), pp. 62-63.

because of the scarcity of information. Louis IX, as would be expected in the case of a sovereign of such piety and zeal for the Christian faith, was a declared enemy of heretics, considering it a king's duty to expel them from his kingdom,¹ and even declaring that a knight ought to kill with his own sword any one whom he knew to be an unbeliever.² He was, moreover, a staunch friend of the Mendicant Orders, by whom he had been educated,³ and not only showed special favour to the inquisitors who came to him on the business of their office,⁴ but gave to the Inquisition the firm support of the royal administration. If we may judge from the ordinances issued for the southern portions of his kingdom, the king's officials were ordered to give active assistance by hunting out heretics and bringing them before the proper ecclesiastical authorities, and by executing promptly the sentences pronounced against them, while a reward was promised to any who assisted in the capture of heretics, and those who attempted to shield or harbour them were threatened with confiscation of goods and civil disabilities.⁵ In 1233 the cause of the Inquisition at La Charité was especially commended to the favour of St. Louis by the Pope,⁶ and the labours of Friar Robert there and elsewhere were performed with the king's aid and under his authority.⁷ The king's

¹ Instructions to his son, edited by Delaborde, *B. E. C.*, lxxiii. 261 (1912), c. 28; Guillaume de S. Pathus (ed. Delaborde), p. 26.

² Joinville, p. 19; Guillaume de S. Pathus, p. 25.

³ See the biographies of St. Louis and the royal accounts, *passim*, and cf. Danzas, *Études sur les temps primitifs de l'Ordre de S. Dominique*, iii. 408 ff.; and Chapotin, *Dominicains de la Province de France*, pp. 494 ff.

⁴ Guillaume de Chartres, in *H. F.*, xx. 33.

⁵ Ordinance for the South, beginning 'Cupientes in primis aetatis,' *Ordonnances des rois*, i. 50. A lost ordinance of St. Louis, 'Cupientes in favorem,' which probably related to the North, is cited by Philip VI. *Ordonnances des rois*, ii. 41; cf. Fredericq, *Corpus*, ii, nos. 20, 55; *Geschiedenis*, i. 112. Ordinances of St. Louis concerning heresy and a letter patent directing the "dukes, counts, etc., to aid the inquisitors of heretical pravity," are mentioned in the contents of a lost formulary of the royal chancery. Langlois, *Formulaires de lettres*, vi. 3, 14, nos. 1, 318.

⁶ Auvray, no. 1145.

⁷ Mousket, vv. 28881, 28882:

Et par la volente dou roi
De France, ki len fist otroi.

Matthew Paris (*Chronica majora*, iii. 520; *SS.*, xxviii. 146): 'Adjutus brachio saeculari et domino rege Francorum impendente subsidium.'

officers carry out the friar's sentences, the king's soldiers accompany him as a guard,¹ the king and queen themselves take a personal, and it must be said a merciful, interest in his proceedings and the fate of his victims.² There is no record that the sovereign attended in person any of the executions for heresy, but there is mention of the presence of certain of the great feudatories, Countess Jeanne of Flanders at Douai, and Thibaut IV of Champagne at Mont-Aimé.³ After Friar Robert's fall the same policy seems to have continued. In the accounts of the year 1248 the expenses of friars inquisitors are charged against the royal treasury at several places in the North,⁴ and at various times we find the cost of the imprisonment and execution of heretics defrayed by the king's agents;⁵ while it was at the king's special request that Alexander IV gave more effective organization to the French Inquisition in 1255.⁶

It is not the purpose of this study to follow the vicissitudes of the Inquisition under the successors of Gregory IX. The legislation of Innocent IV was of great importance in the firm establishment of the Inquisition and the development of its procedure, but it is directed primarily against the heretics of Languedoc and Italy, and touches only in the most general way upon conditions in Northern France.⁷ Alexander IV devoted more attention to affairs in the North, and to his pontificate belongs the definite organization of the French Inquisition

¹ Mousket, vv. 28912-14:

Cil Robiers, o lui siergans vint;
Quar li rois le faisoit conduire,
Pour cou con ne li vosist nuire.

Matthew Paris, *Historia Anglorum*, ii. 388: 'Qui eidem Roberto auxilium praestitit militare.' Sbaralea, *Bullarium Franciscanum*, i. 178: 'Ad locum ipsum manu veniebat armata.'

² Mousket, vv. 28899 ff. Cf. Berger, *Blanche de Castille*, p. 295.

³ SS., xxiv. 30; xxiii. 944.

⁴ *H. F.*, xxi. 262, 264, 268, 269, 273, 274, 276, 280, 281. Cf. also the account of Paris for the Ascension term, 1255, *B. E. C.*, xxviii. 618.

⁵ *H. F.*, xxi. 262, 274; xxii. 570, 745; *B. E. C.*, xxviii. 621. Cf. *H. F.*, xxi. 227, 237; Tillemont, *Histoire de S. Louis*, ii. 292.

⁶ Bull *Prae cunctis mentis* of 13 December, 1255. Potthast, no. 16132; Fredericq, *Corpus*, i, no. 132.

⁷ See for Languedoc, Douais, *Documents*, pp. xiii-xxii; for Italy, the bulls of 1254 in Berger, *Registres d'Innocent IV*, nos. 7790-7802, 8310-13.

under the direction of the Dominican prior provincial at Paris, who finally came to exercise control over the South as well.¹ "Little remains to us of the organization thus perfected over the wide territory stretching from the Bay of Biscay to the Rhine."² In 1248 the almost universal silence of the contemporary records is broken by the royal accounts, which reveal heretics in prison at Paris, Sens, and Corbeil, and inquisitors supported by the king in a dozen different districts of Northern France.³ Three inquisitors are mentioned by name at Paris in 1255;⁴ in 1277 and 1278 Simon du Val, "inquisitor in the kingdom of France," was at work at Orleans, at St. Quentin, and in Normandy;⁵ and in 1285 Friar Guillaume d'Auxerre appears as inquisitor in Champagne and Brie.⁶ The record of their condemnations has disappeared even more completely than the names of the inquisitors. A woman burnt at Pontoise in 1261, presumably for heresy,⁷ a payment of dower to a heretic's widow in 1269,⁸ a conflict of jurisdiction in 1272 between the bishop of Auxerre and the prior of La Charité⁹—such are the scattered notices of the victims of the French Inquisition in the later thirteenth century. "The laborers were vigorous, and labored according to the light which was in them," concludes Lea, "but the men and their acts are buried beneath the dust of the forgotten past. That they did their duty is visible in the fact that heresy makes so little figure in France, and that the slow but remorseless extermination of Catharism in Languedoc was not accompanied by its perpetuation in the North."¹⁰

¹ Fredericq, *Corpus*, i, nos. 130 ff.; Douais, *Documents*, pp. xxii-xxv; Lea, ii, 119; and particularly the excellent account in Fredericq, *Geschiedenis*, i, ch. 5, where the papal legislation affecting the Inquisition in the North is followed through to the time of Boniface VIII.

² Lea, ii, 120.

³ *H. F.*, xxi, 262, 264, 268, 269, 273, 274, 276, 280, 281.

⁴ Royal account, in *B. E. C.*, xxviii, 618.

⁵ Martène and Durand, *Thesaurus*, v, 1810-13; Lea, ii, 120; Fredericq, *Geschiedenis*, i, 60-63; Mandonnet, *Siger de Brabant*, i (1911), pp. 254-255.

⁶ Lea, ii, 121, citing MS. Doat, xxxii, 127.

⁷ *H. F.*, xxii, 745 A.

⁸ *B. E. C.*, xxviii, 621.

⁹ *Gallia Christiana*, xii, instrumenta, col. 173.

¹⁰ Lea, ii, 120.

CHAPTER XI

THE HERESY OF ECHARD THE BAKER OF RHEIMS

OF the two principal groups of heretics in Western Europe in the Middle Ages, Dualists and Waldenses, the Waldenses are decidedly the more obscure. Being both less numerous and less conspicuous, they appear more rarely in the documents and theological writings of the period; indeed their teaching seems to have spread chiefly among the lower classes, and they rarely rise to the surface in such a way as to leave a record of their doctrines or their geographical distribution. Particularly little is known of the Waldenses in the North of France; in Fredericq's great collection of documents relating to heresy in the Low Countries and adjacent French lands the cases reported are almost exclusively Manichean.¹ It is accordingly not without interest to note a well defined instance of Waldensianism at Rheims about 1230, especially as it shows us an example of the pursuit of heretics just before the introduction of the papal Inquisition and brings to light a noteworthy provincial council otherwise unknown. Moreover, the chief heretic, Echard, was a baker by trade and thus gives us a glimpse of a social class not often mentioned in this period.²

In a communication to the Académie des Inscriptions et Belles-Lettres in April, 1889, Barthélemy Hauréau called attention to a sermon of Philip, the chancellor of the University of Paris from 1218 to 1236, in which he speaks at some length of a certain Echard, a baker of Rheims who had been condemned for heresy by a provincial council and burnt.³ Having been delivered on Holy Thursday,⁴ the anniversary of the Last Supper, the sermon takes as its subject bread: there are two

¹ Fredericq, *Corpus*, i, ii; cf. on this point Charles Molinier's review in the *Revue historique*, xliii, 167 (1890).

² Cf. the condemnation of the barber Arnolinus at Châlons in 1235, at which Philip was also present. Albericus Trium Fontium, in SS., xxiii, 937.

³ Académie des Inscriptions et Belles-Lettres, *Comptes rendus*, 1889, pp. 107-108; *Revue critique d'histoire et de littérature*, 1889, i, 340; Hauréau, "Un concile et un hérétique inconnus," in *Journal des savants*, 1889, pp. 505-507; idem, vi, 239-242 (1893). See my note in *A. H. R.*, vii, 442 (1902).

⁴ This was also the day of the great annual sacrament of the French Waldenses: Karl Müller, *Die Waldenser* (Gotha, 1886), pp. 81-84.

kinds of bread, good and bad, and three kinds of ovens for each. For the good bread there are the ovens of the study of the Scriptures, of penance, and of the altar; and the bakers are respectively the doctors of the sacred page, confessors, and priests. "But, alas, over against these the Devil has in our day built his ovens in the Albigeois, the Roman territories, at Milan, and in these parts. His first oven is the secret haunt of suspected doctrine, the bakers are false preachers, the bread is secret error. . . . Echard¹ the baker, who was condemned in the synod of Rheims, was a baker of this sort, and those who preach in secret imitate him." St. Bernard teaches us that, although rustics are ignorant, they must not be dealt with carelessly; "whence it was decreed in the council of Rheims that the books of Holy Scripture should not be translated, as heretofore, into the Gallic tongue." "The second oven is that of misleading confession; the bakers are those who despise the keys of the church." Some of these entirely destroy confession; others would merely restrict its efficacy, denying the validity of indulgences to Crusaders; while still others extend its scope by declaring that it is lawful for any one to confess to whomsoever he wishes. "The third oven of the Devil is the congregation of those who form a pernicious union; its bakers are the sowers of schism. Such was Echard the baker of Rheims and such are his imitators. . . . This baker of Rheims was taken from the threefold oven of false doctrine, misleading confession, and pernicious congregation, and was handed over to the oven of temporal punishment and then to the oven of Hell."

Primi panis furnus est studium sive gymnasium sacre Scripture; huius furni furnarii sunt doctores sacre Scripture. Secundi panis est furnus penitentie; huius furni furnarii sunt confessores. Tertii panis furnus est sacrosanctum altare; huius furni furnarii sunt sacerdotes.

Sed ve nobis hodie, quia contra hos furnos edificavit diabolus suos furnos in Albigeni, in Romanis, in Medulanis et in partibus istis. Primus furnus diaboli est latibulum suspecte doctrine; huius furni furnarii sunt pseudo-predicatores; panis huius furni est falsa doctrina abscon-

¹ The manuscript has Hyecharodus, which Hauréau renders Guichard, but in the further mention of the case to which we shall come below the Troyes MS. 1099 has Ethardus (ff. 167, 173 v) and the Avranches MS. 132 has Ezhardus (f. 4 v) and Hezhardus (f. 12).

dita; Prov.: Aque furtive dulces sunt, panis absconditus suavior.¹ De istis furnariis erat Hyecharthus furnarius, in Remensi synodo condemnatus. Huius imitatores sunt illi qui in abscondito predicant, sicut predixerat Dominus in Matth., 24: Multi pseudo-prophete surgent, et seducent multos; et cet.: Si quis vobis dixerit: Ecce hic est Christus aut illic, nolite credere; et cet. usque ibi: Si ergo dixerit vobis: Ecce in deserto est, nolite exire; Ecce in penetralibus, nolite credere; sicut enim fulgur, et cet. . . . Suspecti sunt qui querunt solitudines; et propter hoc dicit Dominus in Evangelio: Attendite vos a fermento Phariseorum, quod est hypocrisis.² Hos docet reprehendere beatus Bernardus, dicens: Rusticales homines sunt idiote; non tamen negligendi sunt, neque cum eis negligenter agendum est; sermo enim eorum serpit ut cancer; et cet. Propter hoc preceptum est in Remensi concilio ne transferantur scilicet hactenus libri sacre Scripture in gallicum idioma. [In Actibus, Multi autem curiosa sectati contulerunt libros suos, etc.]³

Secundus furnus est furnus confessionis seductorie. Huius furni sunt furnarii clavium ecclesie contemptores, quorum quidam ex toto confessionem destruunt. . . . Item alii sunt qui confessionis virtutem diminuunt, dicentes quod nihil valent indulgentie cruce signatis. . . . Item alii sunt qui confessionem non minuunt, sed confessionis potestatem extendunt, dicentes quod licet unicuique cuilibet confiteri, [non intelligentes illud verbum Iac.:⁴ Confitemini alterutrum peccata vestra.] Horum imitatores sunt quidam sacerdotes qui nimis potestatem suam extendunt, mittentes falcem in messem alienam. Tales sunt illi qui mulierum que sunt de parochia aliena audiunt confessiones; qui potius querunt corruptionem earum quam correptionem. . . . In hoc ergo maximum est periculum illis qui se ingerunt confessionibus, quod mulieres, proprios sacerdotes relinquentes, querunt alienos, quia sic proprii sacerdotes non possunt suas mulieres cognoscere, cum tamen eis dicatur: Diligenter inquire vultum pecoris tui.⁵

Tertius furnus diaboli est congregatio unitatis perniciose. Huius furni sunt furnarii schismatum seminatores. Talis erat Hyecharthus, Remensis furnarius, et eius imitatores tales. Hec est congregatio de qua dicitur in Psalmo: Odivi ecclesiam malignantium.⁶ Iste furnarius Remensis de triplici furno, scilicet doctrine corrupte, confessionis seductorie, et congregationis unitatis perniciose, translatus est ad furnum temporalis pene et deinde ad furnum gehenne.⁷

From this characteristic bit of sermonizing, certain facts stand out definitely. A baker of Rheims, Echard, had secretly

¹ Proverbs, ix. 17. The same text is applied to heretics by Philip in a sermon on St. Bartholomew. Avranches, MS. 132, ff. 23 v-26.

² Luke, xii. 1.

³ Acts, xix. 19.

⁴ James, v. 16.

⁵ Proverbs, xxvii. 23.

⁶ Psalms, xxvi. 5.

⁷ Hauréau, vi. 240-241, collated with MS. lat. n. a. 338, f. 152, from which the two clauses in square brackets have been added.

preached heretical doctrines in which he especially attacked the system of confession, and had gathered about him a body of heretics. He was condemned by a local council and burnt, and at the same time the council forbade translation of the Bible into French. "We know," concludes Hauréau, "of no other evidence concerning this Guichard and this council; it is quite extraordinary that none of the chroniclers mention so important a fact."¹ "It is to be regretted that Philip de Grève does not tell us what were the doctrines whose impiety shocked the Church and brought Guichard to the stake."²

As the heretic and council here mentioned were unknown to previous historians, it becomes a problem of some interest to discover the doctrines which the humble preacher professed and the date of the council by which he was condemned. It is certainly an excellent illustration of the value of sermons as an historical source that such further information as I have been able to collect on both these problems is contained in two other sermons of the same chancellor of Paris, Philip. These belong to a group of his sermons to which none of the earlier writers on the chancellor called attention. Hauréau, whose remarkable knowledge of mediaeval sermons was almost wholly confined to Paris manuscripts, knew but three series of sermons by Philip, namely the *Festivales*, the *Dominicales*, and those *De Psalterio*.³ The sermons of what we may call a fourth series are of a more miscellaneous sort and were prepared not only for the ordinary Sundays and holy days of the ecclesiastical year but for various special occasions, as appears from some of the titles: "Sermon to scholars between Epiphany and Purification at the time when King Louis took the cross against the Albigenses" (1226); "at the feast of St. Martin in his church at Paris in council"; "in council at Bourges to the Crusaders in the King's presence"; "on Passion Sunday at Chambéry (?) in the presence of the Countess of Flanders"; "on Easter eve at Orleans to the students concerning the departure of the students from Paris"; "before the Pope and cardinals at Rome"; "in the chapter of Laon at

¹ Hauréau, vi. 241.

² *Journal des savants*, 1889, p. 507.

³ On Philip's sermons and their authorship, see Chapter II, p. 43, note.

the time of the dissension between the bishop and the citizens"; etc.¹ As these sermons do not constitute a regular series, they do not seem to have been brought together in any single collection. The most numerous body of these appears to be the ninety-four *Sermones Ph. Cancellarii Parisiensis* of MS. 1099 at Troyes. In MS. 132 of Avranches, a manuscript from Mont-Saint-Michel, which contains the most complete collection of the chancellor's sermons to be found in a single volume with which I am acquainted, several of these are scattered among the *Dominicales* and *Festivales*. Some are also to be found in the *Omelie et Sermones Magistri Philippi Cancellarii Parisiensis* of MS. 69 of Vitry-le-François, and two are in the manuscript of the Bibliothèque Nationale, MS. lat. n.a. 338, which was used by Hauréau (ff. 152, 256). Two copies of *Sermones Cancellarii Parisiensis* having the same *incipits* as the Troyes MS. were in the Papal Library in 1295.²

¹ 'Sermo scholaribus inter epiphaniam et purificationem tempore quo rex Ludovicus assumpsit crucem in Albigenes' (Avranches, MS. 132, f. 248 v; also in Troyes, MS. 1099, f. 15 v, and Vitry, MS. 69, f. 107, where the heading is 'In dissensione clericorum Parisius'). 'In festo Sancti Martini in ecclesia eius apud Parisius in concilio' (Vitry, MS. 69, f. 101). 'In concilio Bituricensi ad cruce signatos presente rege' (Vitry, MS. 69, f. 139). 'In passione apud Camberon presente comitissa Flandrie' (Vitry, MS. 69, f. 133 v). 'Sermo cancellarii Parisiensis quem fecit Aurelianus ad scolares de recessu scholarium a Parisius, quem fecit in vigilia Pasche' (Avranches, MS. 132, f. 340; Troyes, MS. 1099, f. 160 v). 'Coram domino papa et cardinalibus Rome' (Troyes, MS. 1099, ff. 152, 154; Vitry, MS. 69, f. 119 v). 'In capitulo Laudunensi tempore dissensionis episcopi et civium' (Avranches, MS. 132, f. 1; Troyes, MS. 1099, f. 160). 'Sermo in institutione prelati. Pro abbate Dunensi . . .' (Troyes, MS. 1099, f. 176). 'Pro archiepiscopo Remensi H.' (*ibid.*). 'Sermo in capitulo sancti Vedasti apud Atrebatum in festo beati Bernardi' (Avranches, MS. 132, f. 16 v), etc.

² *Archiv für Literatur- und Kirchengeschichte des Mittelalters*, i. 29-30 (1885).

Scattered references to heresy occur in other sermons of Philip. Thus, in a MS. of Peterhouse, Cambridge, 1. 3. 9 (James, no. 135), in a sermon for the ninth Sunday after Pentecost, we read of heretics who forbid marriage, and 'alii ita circa Resurrectionem vacillant . . . inter quos nonnunquam mulieres et laici evangelizare audent.' In MS. Alençon 153, f. 89 v, he says: 'Hoc est subtilitas diaboli, ut sicut in exercitu Albigeni machine et ingenia comburantur.' Another reference to the Albigensian Crusades appears at Vitry, MS. 69, f. 71 v (= Troyes, MS. 1099, f. 30): 'Que est ista affectio quod hic plangimus pereuntes propter duas vel tres prebendas vel cetera minora peccata, ibi autem non plangimus hereses, periculum fidei? Pudeat omnes quod comes Montis Fortis invenit milites stipendiarios, clerici autem nec stipendiis possunt allici ut defendant et propagant [*sic*] fidem Dei.'

In a sermon on the duties of the priesthood, delivered before a synod held at Laon on the Tuesday following Trinity Sunday, Philip exhorts the priests to imitate Moses, who led the flock of Jethro to the backside of the desert (Exodus, iii. 1), by leading their people to the inner meanings of Scripture. "The Jew," he continues, "or the heretic does not lead his flock to the interior of the desert, but regards superficially only the externals of Scripture, of whom it is said in the third of Second Corinthians [iii. 6], 'The letter killeth.' Whence some by adhering to externals have fallen from the faith, such as the Poor Men of Lyons, following whom the baker Echard, a citizen of Rheims who was recently condemned, presumed to say that under no circumstances is it lawful to swear, superficially adducing the words of our Lord, Matthew, v. [34], 'I say unto you, Swear not at all.' Likewise he asserted that it is not lawful under any circumstances to kill, because of the passage in Matthew, xiii. [29], 'Gather not up the tares, lest ye root up also the wheat with them.' He also declared it is lawful to confess to whomsoever one wishes, following the last chapter of the Epistle of James [v. 16], 'Confess your faults one to another.' Concerning such it is said in Job, xxx. [4], 'They cut up mallows by the bushes, and juniper roots for their meat.' . . ."

Interiora ergo deserti sunt spirituales sensus sacre scripture. Iudeus vel hereticus non ducit oves suas ad interiora deserti, exteriora solummodo scripture superficialiter attendentes, circa quod dicitur .ii. ad Cor. iii., Littera occidit etc. Unde quidam exterioribus adherentes exciderunt a fide, sicut Pauperes a Lugduno quos sequens Ethardus for-narius, Remensis civis nuper dampnatus, dicere presumebat quod in nullo casu iurare licet, superficialiter inducens verbum Domini, Mat. v., Ego dico vobis non iurare omnino, etc. Asserebat etiam quod in nullo casu licet occidere, propter illud Mat. xiii., Non colligatis zizania ne simul eradicetis cum eis et triticum. Dicebat etiam quod licet cuilibet confiteri, iuxta illud Iacobi ultimi, Confitemini alterutrum peccata vestra. Circa quos dicitur, Iob xxx., Mandebant herbas et harborum cortices, radix iuniperorum erat cibus eorum. Pastores autem boni catholici non dant ad esum arborum cortices sed medullas et fructus dulces, id est sensus spirituales, ut Augustinus, Ambrosius, Gregorius, Ieronimus, et alii, et hoc est oves ducere ad interiora deserti.¹

¹ 'Sermo in synodo Laudunensi. Symon Iohannis, diligis me. . . Multa casu plerumque videntur fieri. . . ' Troyes, MS. 1099, f. 167. The same sermon

Evidently the chancellor feared that the false doctrines of the baker had spread and needed to be met, for on the day after the synod he addressed the people at Bruyères¹ upon the seven sacraments as the pillars of the church, and took occasion to refute in detail the errors of heretics regarding them. He mentions the usurpation of preaching and confession by heretics,² their ridicule of the Eucharist, their denial of marriage and of the virtue of extreme unction, and their belief that the rite of baptism and the administration of the Eucharist can be better performed by a good priest than by a bad. None of the heretics are mentioned by name until the close of the sermon, where, speaking of the sacrament of penance and the power of the priest to give absolution, he says, "Those heretics sin who, like Echard, the baker of Rheims, hold wrong opinions concerning the power of the keys."

Sermo de .vii. sacramentis in episcopatu Laudunensi apud Brueres in crastino post sinodum. Sapientia edificavit sibi domum, excidit columnas .vii. [Proverbs, ix. 1]. Hec domus ecclesia, cuius .vii. columpne .vii. sacramenta. Heretici qui sacramenta impugnant ecclesiam subvertere moliantur. . . . Cum ergo hec tria sint necessaria predicanti, scilicet scientia, devotionis affectus, et bona opera, oportet autem quod in hiis non sit neophytus . . . Quid est ergo quod videmus magis neophitos in hiis sese intrudere? . . . Contra mortem nonne necessarium fuit matrimonium ut decedentes per legitimam generationem restituerentur?

with a slightly different *incipit*, at Avranches, MS. 132, f. 4, the passage quoted being found at the end of f. 4 v and the beginning of f. 5. Also, with still a different *incipit* and with the mention of Echard omitted, at Vitry-le-François, MS. 69, f. 153 v.

In the course of the sermon the date of the synod is given: 'Considerans quidem tempus videbit quod ad sinodum celebrandum post festum Sancte Trinitatis tertia feria prefigitur. Attendens sinodi negotium intelliget quod ipsi negotio tale tempus convenienter aptatur.' Troyes, MS. 1099, f. 166 v. So at Vitry, MS. 69, f. 153 v, the date is given as 'tertia feria post Trinitatem.'

¹ Probably Bruyères-et-Montbérault ('Brueres-en-Laonnois'), in the canton of Laon, eight kilometres from Laon. A. Matton, *Dictionnaire topographique de l'Aisne* (Paris, 1871), p. 42.

² On the usurpation of confession there is also a passage in the sermon just cited: 'Fures sunt confessionis usurpatores presumptuosi . . . : Psalmi, lxvii. [31]: Congregatio taurorum, id est hereticorum, in vaccis populorum, id est in mulierculis coniugatis, ut excludant eos, id est eminere faciant, qui probati sunt argento, id est eloquio divino. . . . Qui ergo ingerunt se confessionibus audiendo potius suspecti sunt de furto quam presumant de eorum zelo.' Troyes, MS. 1099, f. 168; Avranches, MS. 132, f. 5 v.

Unde Dominus dixit, Gen. [i. 22], Crescite et multiplicamini, etc., qui tamen ad ecclesias non pertinent, quicquid dicant heretici, nisi renati spiritualiter, unde Ioh. iii. [3] (f. 171). . . . Peccant heretici [i.e., contra baptismum] qui vim habere non credunt vel qui melius esse credunt datum ab uno sacerdote quam ab alio. Primi peccant contra potestatem Christi quam auferunt; secundi quia alii quam debent conferunt . . . Sciant igitur quod quanto enormius mentiuntur de hoc heretici, tanto efficacius capit tinctura (f. 172). . . . Peccant heretici qui dicunt melius esse sacramentum a digno sacerdote quam indigno. Alii nichil reputant et hii destruunt potissimum ecclesie remedium et medicamentum, et irridendo dicunt, Si esset mons, totus consumptus esset (f. 173). . . . Peccant heretici quorum aliqui nupcias destruunt quas Deus in paradiso constituit sacramentum primum. . . . Peccant contra extremam unctionem . . . heretici qui nullam inesse virtutem credunt (f. 173 v). . . . Peccant heretici qui de potestate clavium male sive perperam sentiunt, ut Ethardus Remensis civis fornarius (f. 173 v).¹

Echard, then, it is expressly declared, was one of the Poor Men of Lyons, otherwise known as the Waldenses, and evidently one of the body of preachers who constituted the organized hierarchy of the sect.² This statement is abundantly confirmed by what is said of his beliefs and practices. Secret preaching by men of humble station and limited education, the possession of vernacular versions of the Scriptures and an uncompromisingly literal interpretation of the biblical prohibitions of oaths and the taking of human life, and denial of the power of the keys as seen in the practice of lay confession and in the rejection of the validity of priestly absolution—all these are familiar manifestations of Waldensian beliefs. Whether Echard and his followers belonged to the French or the Lombard group of the Waldenses, it is impossible to determine. Broadly speaking, the

¹ Troyes, MS. 1099, ff. 169-174; Avranches, MS. 132, ff. 6 v-12 (where the title reads, 'Sermo apud Laudunum ad populum de .vii. sacramentis').

² That the earlier organization of the Waldenses comprised only a body of itinerant preachers, *perfecti*, without organized local communities of *credentes*, was first established by Karl Müller in his monograph cited on p. 245, above, and is now generally accepted. Cf. H. Haupt, "Neue Beiträge zur Geschichte des mittelalterlichen Waldenserthums," in *Historische Zeitschrift*, lxi. 45 (1889); A. Hauck, *Kirchengeschichte Deutschlands*, iv. 863 (1903); and H. Böhmer, article "Waldenser," in the Herzog-Hauck *Realencyclopädie für protestantische Theologie und Kirche*, 3d ed., xx. 812 (1908). Wilhelm Preger still adhered to the view of universal priesthood in his monograph "Ueber die Verfassung der französischen Waldesier in der älteren Zeit," Munich Academy, *Abhandlungen*, hist. Classe, xix. 639-711 (1890).

matters which divided them concerned internal organization and relation to the Roman church rather than belief,¹ and the meagre statements regarding Echard tell us nothing of these subjects. The geographical position of Rheims in relation to the routes of trade was such that the new doctrines might have come either from Italy or from the valley of the Rhone, but the French propaganda spread southward rather than toward the north, whereas the Lombard influence made itself felt throughout Southern Germany and in the valley of the Rhine. The presence of Waldenses at neighbouring centres like Metz, Toul, Strasbourg,² and the close parallelism with the heresies discovered at Trier in 1231,³ would render more probable a connexion between the heretics of Rheims and the German branch of the Lombard movement.

The date of Echard's condemnation would seem to have been 1230 or early in 1231. The extreme limits are 1222, the year of the death of Stephen, bishop of Noyon, who is called "of blessed memory" in the sermon delivered at Bruyères,⁴ and the death of Chancellor Philip in December, 1236. Now Lecoy de la Marche long since pointed out,⁵ on the basis of the concordance of fixed and movable feasts which any one can verify, that the group of sermons in MS. lat. n.a. 338 in which Hauréau first discovered Echard forms a series for the ecclesiastical year from 8 Septem-

¹ See Müller, pp. 3-65; Alanus, *Contra hereticos*, lib. ii, in Migne, *P. L.*, ccx. 377-400. Besides the authorities cited by Müller, reference should also be made to the treatise *Supra stella*, printed by Döllinger in his *Beiträge zur Sekten-geschichte des Mittelalters* (Munich, 1890), ii. 62-84; and to the Vatican MS. Lat. 2648, *De Pauperibus de Lugduno*, printed *ibid.*, pp. 92-97, and also by Preger, *loc. cit.*, pp. 708-711. A convenient English summary of the contemporary Roman Catholic accounts of Waldensian teaching is given by H. C. Vedder, "Origin and Early Teachings of the Waldenses, according to the Roman Catholic Writers of the Thirteenth Century," in *American Journal of Theology*, iv. 465-489 (1900). Böhmer's article "Waldenser" (p. 252, note 2, *supra*) is quite full.

² Hauck, *Kirchengeschichte Deutschlands*, iv. 866 ff.; H. Haupt, "Waldensertum und Inquisition im südöstlichen Deutschland bis zur Mitte des 14. Jahrhunderts," in *Deutsche Zeitschrift für Geschichtswissenschaft*, i. 285-286 (1889).

³ *Gesta Treverorum*, a. 1231, in SS., xxiv. 400-402; Fredericq, *Corpus*, i. 76-78, 80-82; ii. 39-41.

⁴ Troyes, MS. 1099, fol. 170 v; Avranches, MS. 132, fol. 8 v.

⁵ *La chaire française au moyen âge*, 2d ed. (Paris, 1886), pp. 327, 525, 540.

ber 1230 to 29 August 1231. Holy Thursday in 1231 fell 20 March, and the condemnation by the council of Rheims is referred to as something fresh in the hearers' minds; the sermon at Laon in which Echard is *nuper damnatus* was delivered on the Tuesday after Trinity and that at Bruyères a few days later, so that these can be placed on and shortly after 20 May, 1231.

The council in which the condemnation took place is otherwise unknown. The phrase "in Remensi synodo" may refer to a council held at Rheims, or perhaps only to a council of the ecclesiastical province of Rheims;¹ but no such gathering is known which exactly fits the date at which we have arrived. It cannot well have been the synod of Laon, at which the sermon refers to the condemnation as something past, nor is there any special reason for identifying it with the council of Noyon at which Philip preached a sermon.² Councils of this province were numerous between 1233 and 1235, but all of these fall too late for our purpose.³

That a heretic who persisted in his heresy should be burnt, as a fitting preparation for his fate in the world to come, was to be expected in the thirteenth century,⁴ and in 1230 it was altogether natural that the sentence should be pronounced by a provincial council. Cases of heresy were not so frequent in Northern France at this time that there should exist any general understanding as to what constituted false doctrine, and few bishops were ready to decide so important a matter without consulting their fellows. It is not strange that the official accounts of this council should have disappeared in the losses of the French archives of the period; indeed there are many serious gaps in the acts of councils throughout the thirteenth century.⁵

¹ For an example of this usage see P. Varin, *Archives administratives de la ville de Reims* (Paris, 1839), i. 593.

² Avranches, MS. 132, fol. 342 v: 'Sermo cancellarii quem fecit in concilio Noviomensi coram archiepiscopo Remensi et suis suffraganeis.'

³ See particularly the councils concerned with the bishop of Beauvais, in Varin, i. 548 ff.; and cf. Finke, *Konzilienstudien*, pp. 64-66.

⁴ See Chapter X.

⁵ The incompleteness of the collections of Labbé and Mansi is well known; see particularly the additional material in H. Finke, *Konzilienstudien zur*

It is, however, curious that no other record is left of a matter of such permanent importance as the council's prohibition of Romance versions of the Scriptures. Vernacular translations of portions of the Bible are mentioned in connexion with the Waldensian troubles at Metz in 1199¹ and appear also at Liège in 1202² and at Trier in 1231,³ as well as at Rheims;⁴ but while they are forbidden by the council of Toulouse in 1229⁵ and by an act of the king of Aragon and his bishops in 1234,⁶ no other record of such action has been found in the North of France.⁷

Geschichte des 13. Jahrhunderts (Münster, 1891), and cf. P. Glorieux, "Un synode provincial inconnu, Reims, 1267," in *Revue des sciences religieuses*, viii. 230-256 (1928).

¹ S. Berger, *La Bible française au moyen âge* (Paris, 1884), pp. 38 ff.; H. Suchier, in *Zeitschrift für romanische Philologie*, viii. 418 ff. (1884); G. Voigt, "Bischof Bertram von Metz," in *Jahr-Buch der Gesellschaft für lothringische Geschichte und Altertumskunde*, v, 1, pp. 51-54 (1893); cf. the notice of the Lorraine version, B.N., MS. fr. 24728, given by Paul Meyer in *Société des Anciens Textes Français*, *Bulletin*, xxxi. 38-48 (1905).

² Suchier, *loc. cit.*, p. 422; Fredericq, *Corpus*, i. 63.

³ Fredericq, *Corpus*, ii. 41; *Gesta Treverorum*, a. 1231, in SS., xxiv. 401.

⁴ A portion of a translation of the Bible made in the second quarter of the thirteenth century and formerly preserved at Strasbourg seems to have been written in the dialect of Rheims. Berger, *La Bible française*, p. 116.

⁵ J. D. Mansi, *Sacrorum conciliorum collectio* (Florence, 1759-98), xxiii. 197, ch. 14; C. J. von Hefele and A. Knöpfler, *Conciliengeschichte*, 2d ed. (Freiburg, 1873-90), v. 982; Hefele, French tr. by H. Leclercq, v, 2, p. 1498 (1913).

⁶ Issued at Tarragona. E. Martène and U. Durand, *Veterum scriptorum amplissima collectio* (Paris, 1724-33), vii. 123, art. 2; Hefele-Knöpfler, *op. cit.*, v. 1037; Hefele-Leclercq, v, 2, p. 1559.

⁷ On the Waldensian translations and their possible influence, see Berger, *La Bible française*, with the review thereof by Paul Meyer in *Romania*, xvii. 121-141 (1888); H. Suchier, "Zu den altfranzösischen Bibelübersetzungen," in *Zeitschrift für romanische Philologie*, viii. 413-429 (1884); Berger, "Les Bibles provençales et vaudoises," in *Romania*, xviii. 353-422 (1889); H. Haupt, *Die deutsche Bibelübersetzung der mittelalterlichen Waldenser* (Würzburg, 1885) and *Der waldensische Ursprung des Codex Teplensis* (Würzburg, 1886), with the reviews by Berger in the *Revue historique*, xxx. 164-169; xxxii. 184-190 (1886). Cf. "Bibelübersetzungen, romanische," article by E. Reuss revised by S. Berger, in Herzog-Hauck, *Realencyklopädie*, 3d ed., iii. 126-128 (1897).

CHAPTER XII

TWO AMERICAN MEDIAEVALISTS

HENRY CHARLES LEA¹

THE death of Henry Charles Lea removes from this Society's roll of Honorary Members the name of one who, for more than forty years, has brought honour to American historical scholarship. Born in 1825, the son of Isaac Lea and the grandson of Mathew Carey, Mr. Lea represented the best intellectual traditions of Philadelphia and showed his early bent toward the things of the mind by publishing an article on conchology in the *American Journal of Science* at the age of fifteen; but his health as a youth was not strong and he never had a formal academic education. In 1851 he became a partner in the publishing house of Lea Brothers, with which he retained his connexion until 1880, the greater part of this time as the active manager of the business. During the Civil War he was an efficient member of the military committee of the Union League and served as bounty commissioner; on the organization, in 1871, of the first association for the reform of municipal government in Philadelphia he was made its president; and throughout his life his influence was steadily exerted toward better political conditions in city, state, and nation.

Mr. Lea's first publications in the field of history were certain essays on early law which began to appear in the *North American Review* in 1859, and were expanded into a volume in 1866 under the title of *Superstition and Force*. This was followed the next year by a *History of Sacerdotal Celibacy in the Christian Church*, enlarged in a subsequent edition (1907) to two volumes, and in 1869 by a collection of *Studies in Church History*. The direction of Mr. Lea's studies was now defined, but eighteen years elapsed before the appearance of his next book, a period

¹ Reprinted from Massachusetts Historical Society, *Proceedings*, xliii. 183-188 (December, 1909). For a fuller account of Mr. Lea's life and work, see the memoir by Professor E. P. Cheyney in volume 50 of the *Proceedings* of the American Philosophical Society (1911), and the preliminary memoir privately printed by his family, *Henry Charles Lea, 1825-1909* (Philadelphia, 1910).

occupied partly with the responsibilities of business, and partly with laying broad and deep the scholarly foundations of the works upon which his reputation as an historian chiefly rests. These are: *A History of the Inquisition of the Middle Ages* (1887); *Chapters from the Religious History of Spain connected with the Inquisition* (1890); *A Formulary of the Papal Penitentiary* (1892); *A History of Auricular Confession and Indulgences in the Latin Church* (1896); *The Moriscos of Spain* (1901); *A History of the Inquisition of Spain* (1906-07); and *The Inquisition in the Spanish Dependencies* (1908). In all, not counting new editions, Mr. Lea's published work fills eighteen substantial volumes, beside a number of monographic articles and a small volume of *Translations and other Rhymes* privately printed in 1882.

Looked at broadly, the central theme of Mr. Lea's histories is the Latin Church, which was to him "the great fact which dominates the history of modern civilization," and within the church the development of those institutions which have established and maintained its power over the intellect and conscience of men. These institutions interested him, not as legal or theological abstractions, but as actual working forces, reflected, it is true, in the jurisprudence of the church, which offers "the surest basis of investigation for a given period," but really understood only when studied in the concrete detail of daily life. This detail, the real warp and woof of history, does not lie on the surface, but must be sought beyond code and statute in scattered chronicles and charters and fugitive publications, and in the dusty records of tribunals. In other words, any treatment of these subjects which was to be anything but superficial and temporary involved years of labour in the great folio collections of law and theology, in out-of-the-way tracts and pamphlets, and in the libraries and archives of every part of Europe. From this life of patient toil Mr. Lea never shrank. Remote from the original materials, with none of the formal training of the historian, this self-made scholar set himself to attack some of the hardest problems of the world's history, whose difficulties were to prove the measure of his success. From the outset he formed the habit of going directly to the original

sources, and while he never left Philadelphia for purposes of research, his large fortune enabled him to bring together an exceedingly valuable library of printed works and to maintain searchers and copyists in the collections of manuscripts which were most important for his purpose.¹ Dealing with matters which have long been the subject of bitter polemic, he deliberately abstained from reading modern writers lest they should obscure or distort his vision of the past, and he carried this practice so far as to neglect even the non-controversial writings of contemporary historians. This disregard of modern material proved a disadvantage, not only in such matters as his awkward mode of citing authorities and his failure to use recent editions of texts, but especially in his treatment of the early church, where the original records cannot be properly studied without constant reference to the results of critical scholarship; but the fault was the defect of an admirable quality, and few are in danger of repeating it. Frederic William Maitland, the greatest writer on the history of law that the English-speaking world has produced, once said, "It is Dr. Lea's glory that he is one of the very few English-speaking men who have had the courage to grapple with the law and the legal documents of continental Europe. He has looked at them with the naked eye instead of seeing them—a much easier task—through German spectacles. We trust him thoroughly because he keeps his gaze fixed on the middle ages, and never looks round for opinions to be refuted or quarrels to be picked. This is not exactly the policy that we could recommend to any but a strong man. Dr. Lea, however, is strong, and sober, and wary." ²

¹ Mr. Lea's books and manuscripts are now in the Library of the University of Pennsylvania, where a chair of history bears his name. He is also commemorated by the Henry Charles Lea Professorship of Mediaeval History at Harvard University, endowed by the bequest of his daughter, Miss Nina Lea.

The volume of Monsignore Baumgarten mentioned in a subsequent note affords a curious example of *a priori* criticism. He says (p. 11): "From his works it is apparent that Lea must have a card index of extraordinary dimensions, which afforded him ready, though sometimes misleading, answers to most of his questions. Whenever he crossed the ocean he has brought back with him considerable additions to his book treasures." Mr. Lea did not have a card index, and he did not build up his library by journeys to Europe.

² *E. H. R.*, viii. 755.

Mr. Lea's style is clear and at times forcible, and his matter does not lack interest, but his books are read by scholars and by thoughtful readers rather than by the general public. His theme is naturally better suited to interest a European than an American audience, and it is not generally realized among us that probably no American writer of history is so widely known and read on the Continent of Europe. Even in his native city he was better known as a man of affairs than as a man of learning, and Philadelphians of some reading were likely to be surprised when they were told that the excellent judge of city real estate who lived at Twentieth and Walnut Streets was one of the greatest scholars of his time. While, however, Mr. Lea's fame was mainly European and his erudition of the kind more commonly found in Europe, his career as a man of affairs who trained himself to be an historian was characteristically American; and there can be little doubt that his business experience helped to give him a sense of reality, an ability to see straight amid a mass of complicated detail, and a solidity of judgement which are often lacking in writers of a more academic type.¹

In America his best-known book is probably his *Superstition and Force*, which is familiar to a large number of lawyers who have more than a practitioner's interest in their profession. This has passed through four editions and still remains, in spite of all that others have done to illuminate the early history of legal procedure, the best comprehensive account in any language of the methods of trial embodied in the ordeal, compurgation, judicial combat, and torture. In Europe his best-known work is the *History of the Inquisition of the Middle Ages*. Appearing at a time when the most distinguished French student of the Inquisition had pronounced such an undertaking chimerical, this was speedily recognized as the standard authority on the subject, and while it needs to be corrected from time to time with the progress of monographic investigation, there is no prospect of its being superseded. It has been translated into French, a German edition is in process of publication, and it is

¹ Cf. my address on "European History and American Scholarship," *A.H.R.*, xxviii. 215-227 (1923).

understood that arrangements have been made for an Italian version.¹ Mr. Lea's most mature work is the *History of the Inquisition of Spain*,² toward which all the efforts of his later years were directed. The subject is intricate and thorny; the materials were for the most part unprinted and uncalendared; and, except for certain publications of the author, scarcely anything had been done in the way of preliminary exploration or monographic investigation. Under such conditions the historian was obliged to be quarry-man as well as architect, and the four solid volumes which he produced were fashioned out of the living rock of original documents. It was characteristic of the author that when he found the first draft of the work too long for purposes of publication, he took up calmly the task of re-writing the whole at the age of nearly eighty. Rarely has so significant an institution been so sanely and comprehensively studied, and rarely has the reader been placed in so good a position to observe its workings and draw his own conclusions from the evidence presented. There is no striving for dramatic effect; the nature of the Holy Office is manifested in its normal operations rather than in the sensational episodes of its history, and its significance is shown to lie "not so much in the awful solemnities of the *auto de fe*, or in the cases of a few celebrated victims, as in the silent influence exercised by its incessant and secret labours among the mass of the people and in the limitations which it placed upon the Spanish intellect." The narrative is sober and self-contained and there is little moralizing, but the general tendencies of the system are impressively pointed out, and the great lesson taught by the history of the Inquisition is declared to be "that the attempt of man to control the conscience of his fellows reacts upon himself," and that "the unity of faith which was the ideal of statesmen and churchmen alike in the sixteenth century is fatal to the healthful spirit of competition through which progress, material and moral, is fostered."

Such a conclusion will not command universal assent, and

¹ Written in 1909. See now Chapter X, p. 194, note.

² Cf. my reviews of the successive volumes of this work in *The Nation* (New York), lxxxii. 385-387 (1906); lxxxiv. 455-457 (1907); and lxxxvi. 262-263 (1908).

much of Mr. Lea's work has been sharply attacked from the side of the Roman Catholic church. Such institutions as the Inquisition, the confessional, and the celibacy of the clergy have long been the subject of acute controversy, and their history touches issues of living moment. Mr. Lea might assert his lack of polemic purpose and declare his ideal of history to be "a serious attempt to ascertain the severest truth as to the past and to set it forth without fear or favour"; he might mitigate the conventional horrors of the Spanish Inquisition, and even contrast its enlightened treatment of the witch-delusion with the witch-burnings of Protestant Europe; but the deductions from his investigations were generally unfavourable to the ecclesiastical system, and it is not surprising that Roman Catholic writers have impugned his accuracy, and even his good faith.¹ Still, fair-minded Catholics acknowledge his merits, and in course of time his works will be recognized as having added materially to the body of fact, considerable even now, upon which both Protestant and Catholic historians are in fundamental agreement. Lord Acton not only pronounced the *History of the Inquisition of the Middle Ages* to be "the most important contribution of the new world to the religious history of the old," but declared that its essential parts "constitute a sound and solid structure that will survive the censure of all critics."² The Abbé Vacandard, author of the best volume on the Inquisition written from the Catholic point of view, while he denies the finality of the work, accepts Reusch's characterization of it as "l'histoire de l'Inquisition la plus étendue, la plus profonde et la plus fouillée que nous possédions."³ Even Mr. Lea's latest assailant, Monsignore Baumgarten, cannot close without expressing "esteem and admiration for his industry, his endurance and undisputed results."⁴

¹ Beside numerous articles in reviews, see particularly P. H. Casey, *Notes on A History of Auricular Confession: H. C. Lea's Account of the Power of the Keys in the Early Church* (Philadelphia, 1899); and P. M. Baumgarten, *Henry Charles Lea's Historical Writings: a Critical Inquiry into their Method and Merit* (New York, 1909); and cf. the other judgements noted, Chapter X, p. 194, note 1.

² *The History of Freedom and other Essays*, pp. 551, 574.

³ *L'Inquisition* (Paris, 1907), p. vii.

⁴ *Henry Charles Lea's Historical Writings*, p. 143.

Personally Mr. Lea had the modesty, the candour, the serenity, and the unselfish devotion of the truly great scholar. He was generous of his time and his learning to others, as I can personally testify, and many beginners in difficult tasks of research look back with gratitude to his advice and encouragement. Recalling his own intellectual isolation in the early years of his studies, he watched with pleasure the growing circle of well trained scholars in the United States, and looked forward with assurance to the future of the American school of history. Such optimism was characteristic of the man, but it also belonged to a view of history which held that the study of the past in the scientific spirit would render us not only more tolerant of outgrown ethical standards, but also "more impatient of the present and yet more hopeful of the future."¹

CHARLES GROSS²

Charles Gross was born in Troy, New York, 10 February, 1857, the son of Louis and Lottie (Wolf) Gross, and died in Cambridge, 3 December, 1909. He was prepared for college at the Troy High School, where he led his class, and he maintained the same rank at Williams College, from which he graduated in 1878. After a short period of teaching in Troy he went abroad for travel and study, first at the universities of Leipzig, Berlin, Paris, and Göttingen, later in the libraries and archives of England. He received the degree of Ph.D. from Göttingen in 1883, the honorary degrees of A.M. from Harvard in 1901 and LL.D. from Williams in 1904. In 1888 he came to Harvard as instructor in history, and was advanced to an assistant professorship in 1892 and in 1901 to a professorship of history—after 1908 with the title of Gurney professor of history and political science. He became a Member of the Massachusetts Historical Society in 1901; he also served as vice-president of the American Jewish Historical Society and was a corresponding member of the Royal Historical Society.

¹ See his presidential address on "Ethical Values in History," in the *American Historical Review*, ix. 233-246.

² Reprinted from Massachusetts Historical Society, *Proceedings*, xlix. 161-166 (December, 1915).

Throughout his life Gross was a tireless seeker after knowledge. He had a remarkable power of intense and sustained work, and he never spared himself. His love of study for its own sake appeared in his college years, when his room-mate regularly left him at his desk at night and found him there in the morning. His interest in history likewise declared itself at college, and after he had laid his foundations under such European masters as Pauli, Bresslau, and Monod, he devoted himself single-heartedly to the advancement of historical learning by research and teaching. As the field of his special interests he early selected the history of English institutions in the Middle Ages, and like his friend Liebermann, also a pupil of Pauli, he brought the critical and systematic methods of Continental scholarship to bear upon the vast and comparatively unexplored resources of the English records. He had the advantage of some years of work in the British Museum and Public Record Office before he took up academic duties in America, and he used every subsequent opportunity to return to these hunting-grounds, as well as to utilize the valuable collection of books which he gathered about himself in the Harvard library. He avoided no subject because of its difficulty or obscurity, and shrank from no labour which his investigations might demand, so that his works are models of thoroughness and accuracy; but he also brought to his studies qualities of insight, balance, and perfect lucidity of thought and statement which made him an acknowledged master in his profession. Among English historians he chiefly admired Maitland, most of all for the flashes of intuition and inspiration which he found wanting in himself; but if he lacked something of Maitland's brilliancy, he was not inferior in the sureness of his judgement or the solidity of his learning.

The promise of noteworthy achievement was shown in Gross's first piece of historical work, his doctoral dissertation entitled *Gilda Mercatoria*, which riddled prevailing theories and placed the history of English gilds upon a new foundation of established fact. After prolonged research in local records this was enlarged into his *Gild Merchant*, published in 1890, and still the

standard authority upon the subject. A *Bibliography of British Municipal History* followed in 1897, preliminary to a comprehensive work on English municipal institutions, which never advanced beyond a series of articles on special aspects of the subject. Although not a lawyer and modestly disclaiming acquaintance with the law, Gross contributed two important volumes to the legal records published by the Selden Society—*Select Cases from the Coroners' Rolls* (1896) and *Select Cases concerning the Law Merchant* (1908)—both accompanied by historical introductions of much value. Significant brief contributions dealt with such topics as the Exchequer of the Jews, the jurisdiction of the Court of Exchequer, the law of intestacy, and the early history of the ballot. His best-known work is *The Sources and Literature of English History from the Earliest Times to about 1485*, which appeared in 1900, and at once took rank as an indispensable instrument of investigation and an unsurpassed example of bibliographical workmanship. It became the model of the bibliography of the modern period undertaken co-operatively by the Royal Historical Society and the American Historical Association, which are attempting by the joint efforts of several scholars what Gross accomplished for his field unaided and alone. It was entirely characteristic of its author that he should have devoted to lightening the labours of others long years which he was free to give to his own more special studies; and only those who followed the progress of his work can appreciate the thorough preparation that went into its brief and meaty comments, and the months of drudgery spent in verification and in going through masses of material in which he had no personal interest. A labour which sometimes taxed the patience of the administration of the British Museum never exceeded his powers. The later months of his life were occupied with the preparation of a new edition, which has been completed and published (1915), with the co-operation of his family, under the direction of a committee of his Harvard colleagues.

As a teacher Gross showed the same qualities of clearness, thoroughness, and sanity which appeared in his books. He lectured in a high voice with much emphatic repetition, and his

manner and the subjects of his courses appealed rather to the advanced than to the elementary student, but he attracted undergraduates who looked forward to law as well as those who were to continue the study of history. While he also gave instruction in the history of France and of municipal institutions in the Middle Ages, his favourite course was History 9, the constitutional history of England to the sixteenth century. Expounding with great care the *Select Charters* of Stubbs, he summed up with admirable judgement and precision the chief problems of early English institutions in a way that made a profound impression upon his students and held before them the highest ideals of historical scholarship. His methods of work were instilled even more completely into the small number of those whom he directed in special problems of investigation, which he selected with much skill and discernment and which generally led the young investigators to follow up their researches in England. To these he gave of his time and learning with the greatest freedom, and his weekly conferences were occasions for searching yet kindly criticism. He can hardly be said to have founded a school, yet by their teaching and publications in European history his pupils have made perhaps the largest contribution of any single group of American scholars to that field, as may be seen from such names as Colby of McGill, Cross of Michigan, Gray of Bryn Mawr, Hemmeon of Nova Scotia, Lapsley of Trinity College, Cambridge, Lunt of Cornell, McIlwain of Harvard, Morris of California, Perkins of Ohio State University, Sullivan and Wolfson of New York, Trenholme of Missouri, and Wells, formerly of the University of Minnesota. His influence also extended beyond his classroom to men like Baldwin of Vassar, whose elaborate work on the king's council owed its inception to Gross. Though he never taught modern history, men like H. Nelson Gay and the late William Garrott Brown freely acknowledged their indebtedness to his instruction. His mind was concrete rather than philosophic, and he had little interest in the history of ideas or of civilization, limitations which showed themselves less in the content of his instruction than in his obvious lack of real interest

in subjects, such as Gothic architecture, which he explained with clearness and skill. The enthusiasm which students caught from him came partly from his deep interest in the history of institutions, partly from his obvious candour and love of truth and thoroughness. One of those who studied longest with him—Lapsley—writes:

From this distance one looks back on Gross's training as primarily moral. I think it would have horrified him to hear it put so, for he took good care that one acquired certain information and certain indispensable proficiencies. But all that could have been obtained in other quarters, and one remembers him chiefly as letting in upon one with increasing intensity and explicitness the pressure of certain moral necessities. He required of himself and of others truth in the inward parts and was unmindful of praise or reputation. What he cared for was that the work would be done, not who should have the credit of doing it.

Save for his constant attendance at college baseball games, Gross did not evince interest in the ordinary forms of undergraduate activity, but he had a deep and abiding affection for the university of his adoption. He took an active part in the administrative work of Harvard, serving on the administrative board of the College and on numerous committees, and acting for nine years as chairman of the department of history and government. He was active in the establishment of the *American Historical Review* and of the *Harvard Historical Studies*, assisting in the publication of the first fourteen volumes of the Harvard series and giving the last hours of his working life to revising the proofs of the book of his pupil Morris on "The Frankpledge." In the Harvard Library,¹ where so much of his time was spent, he is commemorated by a special fund for the purchase of books concerning English history.

Outside of academic walls Gross's life was the patient, uneventful life of the scholar. He cared little for general travel, and did not return to the Continent till shortly before his death, when he visited Normandy and spent some weeks in Spain and

¹ Since this was written, the Harvard Menorah Society has placed a tablet in the Historical Seminary Room in the Widener Library, commemorating "Charles Gross, 1857-1909, for twenty-one years a teacher of history in this University, guide, friend, seeker after knowledge, a great scholar."

Sicily. So far as possible he gave his vacations to work in London, where he also passed two sabbatical years. He regularly took lodgings in the neighbourhood of the Public Record Office or the British Museum, and his long sojourns made him a familiar figure in Bloomsbury. To many of his friends he is associated most closely with the precincts of the Museum. W. J. Ashley, who had known him in the Göttingen days and was for many years his colleague at Harvard, wrote of their last meeting: "It is not of American sunshine, but of a gray day in London that I think when I recall that steady, quiet, unemotional, solitary, purposeful worker—*ohne Hast, ohne Rast.*" Gross knew his London as do few Americans, and delighted to show its historic spots to friends or pupils. He had few distractions beyond a dinner at some quiet restaurant, coffee at intervals in the day somewhere near his work, and long walks about the streets after hours. His professional associations, too, were with the scholars of London and those who frequented its libraries and archives rather than with Oxford or Cambridge dons. Hubert Hall, who was probably closer to Gross than was any one else in London, writes of their friendship:

I do not remember exactly how this bond of sympathy was shaped or when it was perfected, but since the year 1892, or thereabouts, I have been accustomed to rely upon his knowledge of certain aspects of medieval history very much as I would rely upon the Records themselves. Further than this, I have been accustomed to rely upon his judgment of historical values as I would rely upon that of my own banker or broker in mundane affairs. But it was not the play of human emotion nor the display of intellectual strength that gave to myself and, I am sure, to many others, this feeling of security in his historical co-operation. I think that it was rather the perception of strength reserved and the consciousness that it could be applied when necessary with the force and precision of hydraulic power! This impression accords with my experience of Gross as a correspondent and as a companion. His letters were for the most part extremely brief and laconic; but every sentence was weighed and every sentiment was measured. Equally characteristic was his conversation. He would sit unmoved, smoking sedately, while men talked at random on subjects that he alone, perhaps, knew how to deal with adequately. When appealed to, he would deliver himself, in a matter-of-fact style, of the true solution of the difficulty without the slightest show of impatience or dogmatism. So when you

were alone with him, he would ask questions at short intervals in the manner of one who thinks aloud, and indeed at such times as he was not absorbed in work his mind was actively pursuing some train of learned thought.

Naturally modest and retiring, Gross mixed little in the general society of his academic community, and the distressing and long-continued illness of his wife isolated him still further from the world. He was, however, no recluse, and he delighted in the companionship of colleagues and pupils, both in Cambridge and in London. His former students in particular could always count on the helpfulness and friendship which were characteristic of a singularly unselfish and loyal nature. In every activity of his life he carried more than his share of work and responsibility, and under the most trying circumstances he neither held back nor complained. The only things that taxed his patience were superficiality, sham, and attempts at deception. A great scholar, he brought into every task the scholar's devotion and a certain large simplicity of purpose, and his historical work was merely one expression of a deep sincerity of life and character.

INDEXES

INDEX OF MANUSCRIPTS AND LIBRARIES

Unless otherwise indicated, the library is in each case the public library of the town.

- Agen, MS. 4, p. 31.
 Alençon:
 MS. 153, pp. 43, 62, 249;
 MS. 154, p. 43.
 Amiens, MS. 284, pp. 43 f., 48, 55.
 Angers, MS. 312, p. 10.
 Arras:
 MS. 137, p. 237;
 MS. 329, pp. 43-45, 48, 59;
 MS. 433, p. 7;
 MS. 691, pp. 41, 44.
 — Archives du Pas-de-Calais:
 A. 105, pp. 222, 223, 229,
 233;
 H. 2, p. 241.
 Autun, Séminaire, MS. 139 B, p. 43.
 Auxerre, MS. 35, pp. 41, 59, 64, 67.
 Avignon, MS. 831, p. 7.
 Avranches, MS. 132, pp. 43, 55, 60-62,
 246 f., 249, 251-254.
 Barcelona, Archives of the Crown of
 Aragon, MS. Ripoll 190, pp. 7,
 8, 12.
 Basel, University, MS. B. III. 1, p.
 166.
 Berlin, Staatsbibliothek:
 MS. Lat. oct. 136, pp. 19, 29;
 MS. Lat. 181, pp. 174-176;
 MS. Lat. 403, p. 43.
 Bologna, University, MS. 104, p. 158.
 Bourges:
 MS. 115, p. 43;
 MS. 117, p. 43.
 Breslau, University, MS. oct. 11, p.
 172.
 Bruges, p. 56;
 MS. 546, p. 77;
 MS. 549, pp. 182, 190 f.
 Brussels, Bibliothèque Royale, MS.
 2070, pp. 182, 189.
 Cambridge, England, Gonville and
 Caius College:
 MS. 181, pp. 150, 159;
 MS. 385, p. 77.
 — Peterhouse, MS. 135, pp. 43, 249.
 — University, MS. Gg. v. 37, p. 22.
 Cambridge, Massachusetts, Harvard
 University:
 MS. Riant 35, p. 40.
 Cluny, Abbey, p. 131.
 Copenhagen, Royal Library:
 MS. Gl. kgl. S. 1905, p. 182;
 MS. Gl. kgl. S. 3543, p. 174;
 MS. Gl. kgl. S. 3545, p. 172.
 Erfurt:
 MS. F. 103, p. 43;
 MS. Q. 97, p. 43;
 MS. Q. 124, pp. 165 f.;
 MS. Q. 151, p. 166.
 Erlangen, University:
 MSS. 320-322, p. 42;
 MS. 326, p. 45;
 MS. 327, p. 45;
 MS. 396, pp. 178, 189.
 Escorial, Real Biblioteca, p. 166.
 Florence, Biblioteca Mediceo-Lauren-
 ziana:
 MS. Ashburnham 1520, p.
 168;
 MS. Ashburnham 1545, p. 7;
 MS. Gadd. LXXI. Inf. 13,
 p. 143.
 — Biblioteca Nazionale:
 MS. Conv. soppr. C. I. 2672,
 p. 163;
 MS. Conv. soppr. I. IV. 21,
 p. 164.
 — Biblioteca Riccardiana:
 MS. 669, p. 7.

Graz, University, pp. 41, 119, 179;
MS. 1515, pp. 180, 182, 189, 192.

Heiligenkreuz, Stiftsbibliothek, MS.
257, p. 172.

Leipzig, University, MS. 350, p. 178.
Lilienfeld, Stiftsbibliothek, MS. 98,
p. 172.

Lincoln, Cathedral, MS. A. 2. 5, p. 43.
London, British Museum, p. 40;

Add. MS. 8167, pp. 10, 29, 32;

Add. MS. 10415, p. 142;

Add. MS. 16896, p. 176;

Add. MS. 18335, pp. 45, 69;

Add. MS. 18382, pp. 9, 30;

Add. MS. 19906, p. 139;

Add. MS. 21173, pp. 19, 184;

Add. MS. 33221, p. 7;

Arundel MS. 240, pp. 11, 27,
30;

Arundel MS. 514, pp. 7, 14 f.,
21-25, 31-33;

Cotton MS. Nero C. IX, p.
161;

Cotton MS. Vitellius C. VIII,
pp. 6, 13, 18, 21, 28, 29, 30,
34;

Harleian MS. 670, p. 12;

Harleian MS. 3593, pp. 8, 32;

Harleian MS. 3988, p. 23;

Harleian MS. 4025, p. 168;

Harleian MS. 4971, p. 22;

Harleian MS. 4993, p. 11;

Royal MS. 5 E. 1, p. 161;

Royal MS. 7 D. 1, p. 41.

Royal MS. 8 A. vi, p. 18;

Royal MS. 8 F. xiii, pp. 43,
55.

— Lambeth Palace:

MS. 20, p. 161.

Lübeck, MS. 152, pp. 136 f.

Mantua, MS. A. II. 1, p. 182.

Milan, Biblioteca Ambrosiana:

MS. E. 43 sup., p. 143;

MS. L. 92 sup., p. 149;

MS. O. 63, p. 143.

Monte Cassino, Abbey, MS. 220, p.
164.

Montpellier, École de Médecine, MS.
277, p. 168.

Munich, Staatsbibliothek:

Cod. Lat. 96, pp. 11, 19, 22, 29,
31 f.;

Cod. Lat. 443, p. 143;

Cod. Lat. 2649, pp. 8, 9, 17, 19, 20,
29;

Cod. Lat. 3740, p. 43;

Cod. Lat. 5319, p. 9;

Cod. Lat. 5667, p. 12;

Cod. Lat. 5896, pp. 165 f.;

Cod. Lat. 6911, pp. 6, 14, 24, 32, 33;

Cod. Lat. 7082, pp. 22, 23, 32;

Cod. Lat. 7547, pp. 165 f.;

Cod. Lat. 8184, pp. 165 f.;

Cod. Lat. 11799, pp. 10, 11;

Cod. Lat. 14529, p. 30;

Cod. Lat. 14660, p. 12;

Cod. Lat. 14708, pp. 19, 22;

Cod. Lat. 14784, pp. 172, 181;

Cod. Lat. 15133, p. 165;

Cod. Lat. 15956, pp. 165 f.;

Cod. Lat. 16122, pp. 7, 16;

Cod. Lat. 19411, pp. 31, 172 f., 180;

Cod. Lat. 22293, pp. 7, 15, 16 f.,
21-24, 32;

Cod. Lat. 22294, p. 22;

Cod. Lat. 23372, pp. 41 f., 45 f., 64;

Cod. Lat. 22373, p. 12;

Cod. Lat. 23420, p. 63;

Cod. Lat. 23496, p. 171;

Cod. Lat. 23499, pp. 6, 8, 13, 14,
16-19, 28 f.

Nevers, Archives de la Nièvre, p. 201.

Oxford, Balliol College:

MS. 227, p. 167;

MS. 263, p. 191;

MS. 276, p. 191.

— Bodleian:

MS. Ashmole 757, pp. 41, 45,
47, 58;

MS. Auct. F. 3. 9, pp. 22, 34;

Oxford, Bodleian—*cont.*

MS. Canonici Misc. 555, p. 149;

MS. Digby 103, p. 168;

MS. Laud Misc. 569, pp. 5,
178 f., 182, 190;

MS. Rawlinson G. 96, p. 77.

— Corpus Christi College:

MS. 125, pp. 150–155.

— Merton College:

MS. 237, pp. 41, 45, 55, 57 f.,
64.

Padua, Biblioteca Antoniana, MS.

152, p. 44.

Palermo, Biblioteca Comunale, MS. 4

Qq. A. 10, pp. 150–157.

Paris, Archives Nationales:

J. 306, 85, p. 241;

JJ. 26, p. 203.

— Bibliothèque de l'Arsenal:

MS. 854, pp. 8, 15, 24 f., 27,
32 f.;

MS. 1132, p. 7;

MS. 3807, pp. 7, 14, 17, 21–25,
32 f.

— Bibliothèque Mazarine:

MS. 1005, p. 42;

MS. 1009, pp. 43, 55, 61;

MS. 3716, pp. 113, 115 f.

— Bibliothèque Nationale:

MS. Baluze 77, p. 50;

MS. Doat xxxi, pp. 210, 238;

MS. Doat xxxii, p. 244;

Coll. Moreau, MS. 863, p. 213;

Coll. Moreau, MS. 1191, p.
205;Coll. Moreau, MS. 1193, p.
219;MS. fr. 11620, pp. 222, 226,
229;

MS. fr. 24728, p. 255;

MS. lat. 568, p. 45;

MS. lat. 1093, pp. 4, 18, 29,
30, 31 f., 137;

MS. lat. 2516 A, pp. 43, 45;

MS. lat. 3280, p. 43;

MS. lat. 3281, p. 43;

MS. lat. 3543, p. 43;

MS. lat. 3544, p. 43;

MS. lat. 3545, p. 43;

MS. lat. 3563, p. 42;

MS. lat. 3705, p. 42;

MS. lat. 5993 A, p. 216;

MS. lat. 7517, p. 188;

MS. lat. 7731, p. 6;

MS. lat. 7732, pp. 6, 8, 13,
14, 19, 20;

MS. lat. 8350, p. 21;

MS. lat. 8566 A, p. 185;

MS. lat. 8652 A, p. 31;

MS. lat. 8653, pp. 7, 14, 21,
22 f., 24 f., 31, 32, 33;MS. lat. 8653 A, pp. 5, 12, 15 f.,
19, 26, 28, 34;MS. lat. 8654, pp. 6, 8, 13 f.,
17–20, 28;

MS. lat. 8661, pp. 8, 19 f.;

MS. lat. 10968, p. 45;

MS. lat. 11384, pp. 8, 12, 24 f.,
32, 34;

MS. lat. 11385, pp. 7, 14, 33;

MS. lat. 11386, pp. 7, 30;

MS. lat. 12293, pp. 42, 46;

MS. lat. 12416, p. 43;

MS. lat. 12418, pp. 44 f.;

MS. lat. 13586, p. 42;

MS. lat. 14069, pp. 6, 12, 24,
30, 32 f.;MS. lat. 14174, pp. 8, 12, 25,
32, 135;

MS. lat. 14193, p. 31;

MS. lat. 14357, p. 9;

MS. lat. 14593, pp. 42, 46;

MS. lat. 14626, p. 223;

MS. lat. 14766, pp. 8, 30, 32;

MS. lat. 14889, p. 47;

MS. lat. 14899, pp. 44 f.;

MS. lat. 14947, pp. 44 f.;

MS. lat. 14952, pp. 42, 45;

MS. lat. 14955, p. 60;

MS. lat. 14961, p. 45;

MS. lat. 15005, pp. 45, 65;

MS. lat. 15129, p. 45;

MS. lat. 15131, pp. 5, 21, 34;

MS. lat. 15527, p. 45;

MS. lat. 15933, p. 43;

Paris, Bibliothèque Nationale—*cont.*
 MS. lat. 15951, pp. 42 f., 44,
 49, 56, 63;
 MS. lat. 15952, pp. 42, 44, 45,
 69;
 MS. lat. 15953, p. 44;
 MS. lat. 15954, pp. 42 f., 44;
 MS. lat. 15955, pp. 42-45, 49,
 57 f., 61, 70;
 MS. lat. 15956, p. 45;
 MS. lat. 15959, pp. 39, 43 f.,
 46, 48, 55, 58-60, 63, 67, 69;
 MS. lat. 15964, p. 44;
 MS. lat. 15971, pp. 42, 46-49,
 55, 57 f., 64-66;
 MS. lat. 16089, p. 65;
 MS. lat. 16252, pp. 9, 45, 55,
 60;
 MS. lat. 16253, pp. 8, 24 f.,
 32 f.;
 MS. lat. 16466, p. 43;
 MS. lat. 16469, p. 43;
 MS. lat. 16471, pp. 43 f., 47-
 49, 55 f., 59, 63, 66;
 MS. lat. 16481, pp. 44 f., 52 f.;
 MS. lat. 16482, pp. 42, 45, 53;
 MS. lat. 16488, pp. 42 f., 44,
 49;
 MS. lat. 16499, p. 42;
 MS. lat. 16502, pp. 44 f., 58;
 MS. lat. 16505, pp. 42-45, 63;
 MS. lat. 16507, pp. 42-44, 49,
 55;
 MS. lat. 16523, p. 12;
 MS. lat. 16610, p. 168;
 MS. lat. 16617, pp. 32, 135;
 MS. lat. 16741, p. 44;
 MS. lat. 18175, p. 43;
 MS. lat. 18195, p. 33;
 MS. lat. 18224, p. 49;
 MS. lat. 18595, pp. 7, 14-16,
 21-25, 29, 31 f.;
 MS. lat. n. a. 338, pp. 43 f.,
 47 f., 55, 60, 62, 247, 249,
 253;
 MS. lat. n. a. 426, pp. 8, 20,
 22, 26, 30;
 MS. lat. n. a. 610, pp. 178, 184;

MS. lat. n. a. 619, pp. 87-91;
 MS. lat. n. a. 1266, pp. 31, 34;
 MS. lat. n. a. 1274, p. 217;
 MS. lat. n. a. 2274, p. 204;
 MS. lat. n. a. 2275, p. 204.
 — Bibliothèque Sainte-Geneviève,
 MS. 2775, p. 15.
 Pavia, University:
 MS. Aldini 42, p. 143;
 MS. 176, p. 7.
 Poitiers:
 MS. 184, p. 111;
 MS. 213, pp. 182, 190.
 Pommersfelden, Fürstliche Biblio-
 thek:
 MS. 189, p. 136;
 MS. 2750, pp. 173 f., 180.
 Prague, University and Public Li-
 brary, MS. 233, p. 164.
 Rennes, MS. 227, p. 116.
 Rheims, MS. 1275, pp. 20, 23, 136.
 Rome, Biblioteca Vallicelliana, MS.
 C. 91, p. 130.
 — Biblioteca Vaticana:
 MS. Ottoboni lat. 333, p. 59;
 MS. Ottoboni lat. 1848, p. 7;
 MS. Ottoboni lat. 3325, p. 80;
 MS. Pal. lat. 1071, p. 113;
 MS. Pal. lat. 1273, p. 168;
 MS. Pal. lat. 1801, pp. 182,
 189, 192;
 MS. Reg. lat. 455, p. 223;
 MS. Reg. lat. 480, p. 223;
 MS. Reg. lat. 1227, p. 117;
 MS. Reg. lat. 1596, pp. 142 f.;
 MS. Rossi ix. 111, p. 149;
 MS. Vat. lat. 1246, p. 43;
 MS. Vat. lat. 1247, p. 43;
 MS. Vat. lat. 2648, p. 253;
 MS. Vat. lat. 2868, p. 142;
 MS. Vat. lat. 4265, pp. 165 f.;
 MS. Vat. lat. 4436, p. 168;
 MS. Vat. lat. 4847, pp. 165 f.;
 MS. Vat. lat. 4951, pp. 160-
 163;
 MS. Vat. lat. 4957, p. 138;
 MS. Vat. lat. 5366, p. 117;

- Rome, Biblioteca Vaticana—*cont.*
 MS. Vat. lat. 6297, p. 13;
 MS. Vat. lat. 9991, p. 182;
 MS. Vat. lat. 10068, pp. 165 f.
 — Biblioteca Vittorio Emanuele,
 MS. 380, p. 131.
 — Vatican Archives, pp. 159, 218.
- Rouen:
 MS. 615, pp. 43, 61;
 MS. 1468, p. 22.
- Salzburg, St. Peter's, MS. V. 13, p. 180.
- Savignano di Romagna, MS. 45, pp.
 182 f.
- Siena, MS. F. x. 5, p. 43.
- Soissons, MS. 125, p. 45.
- Tarragona, Biblioteca Provincial,
 MS. 6, pp. 8, 19, 32.
- Tours:
 MS. 468, pp. 40, 50, 59, 63, 66, 68;
 MS. 594, pp. 59, 198, 234 f., 239 f.
- Troyes:
 MS. 1099, pp. 43, 46 f., 60, 62, 246,
 249-253;
 MS. 1100, p. 43;
 MS. 1417, p. 43;
- MS. 1556, pp. 7, 14, 24 f., 33;
 MS. 1788, p. 45;
 MS. 1992, p. 11.
- Valenciennes, MS. 483, pp. 26, 185 f.
- Venice, St. Mark's:
 Cod. gr. iv. 57, suppl., p. 168;
 Fondo Antico MS. 92, pp. 41, 45,
 48, 70.
- Vienna, Nationalbibliothek:
 MS. 246, p. 182;
 MS. 590, pp. 165 f.;
 MS. 637, p. 12;
 MS. 861, p. 180;
 MS. 2507, pp. 181-184;
 MS. 2512, p. 7;
 MS. 4406, pp. 165 f.
- Vitry-le-François, MS. 69, pp. 43,
 249, 251.
- Wolfenbüttel, Landesbibliothek:
 MS. 2444, p. 80;
 MS. 2942, p. 172;
 MS. 5620, pp. 178, 180, 189.
- Zwettl, Stiftsbibliothek, p. 172.

GENERAL INDEX

The abbreviations 'f.' and 'ff.' indicate that the reference is to the page designated and, respectively, to that next following or to the two next following.

- A., *Asiensis servus ecclesie*, 185.
 A., master and *dictator*, 185.
 Aachen, 95.
 Abaelard, 56, 177, 192.
 Abraham, 62.
 Abuteus the Levite, 158.
 Achaia, 161.
 Achery, L. d', 211.
 Achilles, 120.
 Achmet, 169.
 Acton, Lord, 194, 209, 261.
 Adam, chanter of Cremona, 129.
 Adelard of Bath, 111.
 Admont, 181.
 Adrian IV, pope, 183.
 Aegidius Romanus, 109.
 Aelfric, 83.
 Africa, 157.
 Aginolfus, 173, 180, 186.
 Agnellus de Gaeta, 141.
 Agriculture, treatises on, 119.
 Aimery de Veire, 45.
 Alba, 184.
 Albericus of Monte Cassino, 171 ff.,
 177, 178, 180, 181, 186 f.
 Albericus Trium Fontium, 198, 210,
 211, 212, 220 f., 223, 224, 230, 245.
 Albert de Mora, 188.
 Albert de Reims, 48.
 Albert of Samaria, 2, 173-177, 178,
 180, 186 f., 190, 192.
 Albert of San Martino, 184.
 Albertano of Brescia, 142.
 Albertus Magnus, 86, 112, 220.
 Albigenses, 195 f.; doctrines, 98; Albi-
 gensian Crusades, 32, 198, 246,
 248, 249.
 Alchemy, 128 f., 131, 148; the *Alchemy*
 ascribed to Michael Scot, Chapter
 VII.
 Alcibiades, 124.
 Alengry, C., 198, 223.
 Aleppo, 157.
 Alexander the Great, 121.
 Alexander Neckam, 120.
 Alexander (?), pope, 180.
 Alexander III, pope, 190.
 Alexander IV, pope, 240, 243.
 Alexandre de Villedieu, 24.
 Alexandria, 93.
 Alexius I Comnenus, Byzantine em-
 peror, 161, 163 f., 174.
 Al[fonso], bishop of Pavia, 184.
 Alice, sorceress, 220.
 Alps, 18, 171, 183.
 Amalfi, 162.
 Amand de Saint-Quentin, 52, 53.
 Amauri de Bène, 202, 203.
 Ambrose, St., 250.
 American Historical Association, 264.
 American Jewish Historical Society,
 262.
 Anastasius of Sinai, 166.
 Ancona, 185.
 André de Marchiennes, 219.
 Andrew, converted Jew, canon of
 Palencia, 159.
 Andrew, St., 161 f.
 Angers, 20, 61, 62.
 Angevins, 133.
 Anselm of Aosta, archbishop of
 Canterbury, 100, 161.
 An[selm], bishop of Asti, 184.
 Anselm of Cremona, 216.
 Anselm, *dictator*, 178, 186.
 Anselm of Laon, 177, 192.
 Antichrist, 124.
 Anti-clerical satires, 138 f., 147, 212.
 Antioch, 93.
 Antwerp, 199, 232.
 Aosta, 19.
 Apulia, 103, 114.

- 'Aquila,' 111.
 Aquileia, 180.
 Ar., bishop 'Saonensis,' 184.
 Arbois, 5, 12, 26.
 Archdeacon, forms for asking money from, 9.
 Ardingus, bishop of Florence, 234.
 Arezzo, 75, 183.
Argentea lingua, 24, 180.
 Aristotle, 47, 54, 85, 100, 114, 148;
 De animalibus, 168 f.; *Topica*, 49;
 'the A B C of Aristotle,' 79.
 Aristotle, Pseudo-, 129; *Secretum secretorum*, 129.
 Arnaud, dean of Chartres, 11.
 Arnold the Catalan, 135.
 Arnolius, barber of Châlons-sur-Marne, 219, 245.
 Arnoul d'Audenaarde, 229.
 Arras, 198, 199, 200, 202, 222, 229, 233, 235.
Ars de venerie, 110.
Ars dictaminis, Chapters I, VI, IX; bibliographical notes, 2, 171.
 Arts, faculty of, 55.
 Ascq, 221.
 Ashley, W. J., quoted, 266.
 Asia Minor, 101.
Asinus, 89, 90.
 Assize of Clarendon, 202.
 Asson, bishop of Arras, 220 f., 222, 229, 230, 235.
 Asti, 184, 185.
 Astrology, 144, 149.
 Astronomy, 46, 49, 172.
 Athens, 93.
 Auctor ad Herennium, 187.
Auditio circuli, 90.
 Augustine, St., archbishop of Canterbury, 161.
 Augustine, St., bishop of Hippo, 42, 58, 179, 250.
Aurea gemma, 5; of Henricus Francigena, 5, 178 ff.; of Willelmus, 180 f.; at Admont, 181.
 Austria, 101.
 Autun, 43, 203.
 Auvray, L., 70, 158, 190, 197, etc.
- Auxerre, 203, 206, 207; diocese of, 216.
 Avars, 103.
 Averroës, 148.
 Avicenna, 148.
 Azo, 75.
 B., *prepositus* of Lucca, 185.
Babees Book, The, 79.
 Babylon, 121.
 Baebler, J. J., 83.
 Baesis, 154.
 Bahlmann, P., 80.
 Baldwin, *dictator*, 189.
 Baldwin, C. S., 2.
 Baldwin, J. F., 265.
 Ball, game, 90 f.
 Barac, 157.
 Baronius, C., 164.
 Barthélemy de Tours, 46.
 Bartholomew, friar of Bologna, 47.
 Basel, 30.
 Bateson, Mary, 98.
 Baths, 87, 90, 119.
 Baudoin d'Avesnes, 219, 220.
 Baumgarten, P. M., 194, 258, 261.
 Beadles, 55.
Beamus, 30, 85.
 Beaumanoir, 241.
 Bec, 95.
 Bede, 95.
 Bedels, 66 f.
 Bédier, J., 101, 102.
 Bekker, A. I., 79, 80.
 Bémont, C., 228.
 Bene, professor at Bologna, 140.
 Benedict XII, pope, 198.
 Benedictines, 162.
 Benefices, 9, 21, 48 f., 65, 215, 240.
 Benevento, 185.
 Benno, bishop of Meissen, 180, 189.
 Berchtold von Teck, bishop of Strasbourg, 238.
 Berger, E., 67, 195, 196, 243.
 Berger, S., 255.
 Berlin, 262.
 Bernard of Bologna, 182 f., 184, 190, 192.
 Bernard de Caux, inquisitor, 196, 233.

- Bernard of Chartres, 181.
 Bernard of Clairvaux, 199, 246, 247.
 Bernard Gui, 196.
 Bernard de Meung, 6, 29, 31, 32, 175, 191.
 Bernard Silvester, 191.
 Bertaud de St. Denis, 45.
 Berthelot, M., 157.
 Bertoni, G., 7, 125, 142.
 Bertrand de Cardaillac, bishop of Cahors, 230.
 Besançon, 33, 199, 212, 213.
 Besta, E., 140.
 Beuzart, P., 196.
 Bible, the, expense of, 25, 63.
 Bidez, J., 148.
 Binz, G., 166.
 Bitrogi, al-, 158.
 Bloomsbury, 266.
 Boala, 157.
 Böhmer, H., 252, 253.
 Bömer, A., 84.
 Boethius, 73, 74.
 Boethius, Pseudo-, 73; *De disciplina scholarium*, 73, 74.
 Bohemia, 98.
 Bollandists, 162.
 Bologna, 5, 7, 8, 12, 18, 19, 20, 22, 25, 26, 27, 28, 30, 32, 37, 50, 55, 75, 76, 119, 140 f., 171, 172, 177, 180 f., 183, 184 ff., 186 f., 188, 192.
 Boniface VIII, pope, 244.
 Bonizo, bishop of Sutri, 177.
 Bonnerot, J., 36.
 Bonvesin da Riva, 79, 80.
Book of Curtisie, The, 79.
 Books, 23-25, 65, etc.; accumulation of, 74; migration of, 100; bookstalls, 82.
 Borrelli de Serres, 23.
 Borrowing, 12, 31 f., 35, 86.
Bougri, 222, 224.
 Bourgain, L., 38, 39, 42, 57, 59.
 Bourges, 206; council of, 248 f.; diocese of, 217.
 Bourgin, G., 98.
 Bourquelot, F., 199, 216, 223 f.
 Bouvines, 70.
 Boyce, G. C., 37.
 Brackmann, A., 190.
 Bremond, A., 227.
 Bresslau, H., 2, 4, 171 f., 173, 182, 188, 263.
 Breteuil, 98.
 Brie, 244.
 British Academy, 148.
 Brittany, 8, 26, 198, 203.
 Brown, J. W., 148, 150, 154, 157.
 Brown, W. G., 265.
 Brünn, 16, 17.
 Bruyères, 251, 253, 254.
 Budinsky, A., 36.
 Bütow, A., 2, 171 f., 173, 174, 179, 180, 182, 187, 188, 189.
 Buoncompagno, 6, 8, 13, 16, 17, 18, 19, 20, 28, 29, 31, 55, 188.
 Burdach, K., 2, 29, 30.
 Burgundio the Pisan, 99.
 Burgundy, 95, 98, 103, 198, 203, 209, 213, 214, 219.
 Burial alive, as a punishment, 238 f.
 Burning, as a punishment, 199, 203, 214, 219, 220, 221, 223 f., 230, 237, 243, 244, 245-248, 254.
 Bury St. Edmunds, 95.
 Byzantium, 160-169; Byzantine learning, 98, 109, 111. *See* Constantinople.
 C., archbishop of Pisa, 185.
 C., bishop of Vicenza, 185.
 Cadiz, 93.
 Caesar, 74, 124.
 Caesar[ius] of Heisterbach, 38, 40, 47, 50, 62, 63, 196, 203, 237.
 Cahors, diocese of, 235.
 Calixtus II, pope, 179, 180.
 Callaey, F., 83.
 Cambrai, 202, 219, 220, 221, 230, 232, 239.
 Cambridge, England, 5, 23.
 Cambridge, Massachusetts, 262.
 Candles, 64, 82.
 Canonical purgation, 201, 205, 215, 234, 236.

- Canon law, 25, 27, 47, 57, 65, 145,
 200; statutes of 1231 against heresy,
 208 f., 214, 219, 240.
 Canterbury, 97, 101, 162.
Canterbury Tales, 103.
Capitatio benevolentie, 3, 181, 185, 187.
 Capuar. school of rhetoric, 134 f.
 Carbonelli, G., 131.
 Carcassonne, 196, 233, 240.
 Carey, Matthew, 256.
 Carini, I., 150.
 Carinthia, 209.
 Cartellieri, A., 6, 25, 29, 31, 32, 188,
 190.
Cartula, 225 f., 236.
 Casey, P. H., 261.
 Cathari, 198, 223, 244.
 Cathedrals as intellectual centres,
 96 f.
 Cato, *Disticha*, 17, 78, 169.
 Cats, 67 f., 144.
 Cauzons, T. de, 193, 198, 200, 229,
 231, 233, 237, 240.
 Cavazza, F., 76.
 Caxton, 121.
 Ceruti, A., 130.
 Cervantes Salazar, F., 83, 84.
 Cesareo, G. A., 126.
 Chalandon, F., 163.
 Châlons-sur-Marne, 198, 210, 219,
 230, 239.
 Chambéry (?), 248 f.
 Chambon, F., 42.
 Champagne, 19, 198, 199, 205, 210,
 219, 229, 230, 235, 244.
 Champion, P., 37.
 Chancellors of Paris, 42-45.
Chanson de Roland, 103.
 Chapotin, M. D., 196, 198, 211, 226,
 228, 233, 242.
 Chapultepec, 84.
 Charlemagne, 95, 103, 120.
 Charlesworth, M. P., 93.
 Chartres, 5, 8, 11, 43, 94, 103, 181,
 190, 192.
Chartularium Universitatis Parisien-
sis, 36, 37, 42, 44, 45, 48, 53, 60, 61,
 66, 70, 77, 203, 232.
 Charybdis, 119.
 Chase, the, 107, 110-118.
 Chatelain, E., 37.
 Châtelet, the, 53.
 Chaucer, 72, 103.
 Checchini, A., 142.
 Chénon, E., 196, 204, 214.
 Chess, 34, 120 ff.
 Chesterton, G. K., 104.
 Cheyney, E. P., 256.
Choreae, 70.
 Christmas, student celebration of, 69.
 Chrysolanus of Milan, 163 ff.
 Chrysoloras, 83.
 Church, mediaeval, as a source of
 unity, 94. *See* Canon law, Heresy,
 Inquisition.
 Cicero, 185, 187, 191. *See* Tullius.
 Cistercians, 50, 63, 96, 182.
 Civil law, 24, 145.
 Clairvaux, 227.
 Clarendon, Assize of, 240.
 Clermont, 214 f.
 Clerval, A., 11.
 Cloetta, W., 130.
 Cluni, 96.
 Codrus, 121.
 Coffman, G. R., 95, 101.
Cola, 175.
 Colby, C. W., 265.
 Colin Morand, 205.
 Cologne, 97, 183, 189, 202.
Colores rethorici, 179.
 Compostela, 102, 103, 181.
 Compurgation, 236, 259.
Conclusio, 3, 171, 181, 187.
 Confession, 53 f., 57, 234, 246 ff.,
 250 ff., 261.
 Confiscations, 240 f.
 Conrad (= Pseudo-Boethius?), 73.
 Conrad III, emperor, 180, 184 f., 189.
 Conrad II, bishop of Hildesheim, 208.
 Conrad of Marburg, 208, 224.
Consolamentum, 223.
 Constantine the African, 169.
 Constantinople, 83, 99, 103, 107, 160,
 161, 165, 168, 238. *See* Byzantium.
 Copyists, 64.

- Corbeil, 244.
 Corbie, 96.
 Corradino, 133.
 Coulton, G. G., 100.
 Councils, provincial, 199, 201, 202, 203, 204, 231, 245-255.
 Court poetry, 97, 128, 145 f.
 Courts as intellectual centres, 97 f., 128-147.
 Cracow, 30.
 Crane, T. F., 38, 40, 50.
 Cranes, 114, 115 f.
 Creizenach, W., 130, 143.
 Cremona, 12, 177, 186.
 Cremonini, Pia, 194.
 Cries of the streets, 62.
 Cross, A. L., 265.
 Crosses, worn as punishment, 220, 239.
 Crusades, 97, 99, 115; Albigensian, 198, 248, 249; Fourth, 100, 162.
 Camont, F., 167, 168.
Cursus, 172, 188, 191.
 Custom, determining force in the Middle Ages, 94.

 D. Boterel, 27.
 D. of Ferrara, imperial judge, 180.
 D., bishop of Piacenza, 185.
 Damon, 121.
 Dandolo, Henry, patriarch, 165.
 Daniel Church, 128.
 Daniel of Morley, 100.
 Dante, 39, 47, 124, 128, 133.
 Danzas, A., 228, 242.
 Darmstädter, E., 157.
 Daude de Pradas, 117.
 David, 17, 121.
 Davidsohn, R., 140.
De aluminibus et salibus, 157.
De arte bersandi, 117.
De arte dictandi breviter et lucide, 8.
De arte venandi cum avibus, 112-116.
Debate between Pippin and Alcuin, 83.
Decretals, 25, 27, 47, 238.
Dedignonium, 140 f.
De disciplina scholarium, 73, 74.
 Degrees, 27 f., 86 f. *See* Examinations.

 Delaborde, H. F., 242.
 Delbrück, H., 109.
 Delisle, L., 4, 6, 8, 18, 20, 22, 26, 30, 31, 42, 44, 131, 188, 190, 217, 219.
 Denifle, H., 1, 37, 46, 59, 140.
De Paulino et Polla, 144.
 De Poorter, A., 56.
 Department, books on, 78 ff.
 De Wulf, M., 203.
Dialogue on the Exchequer, 122.
 Dialogues, student, 82-91.
 Dice, 67, 69, 78, 82; text of the, 58.
Dictamen, Chapters I, VI, IX.
Dictatores, Chapters I, VI, IX.
 Dictionary, first appearance of the word, 81.
Digest, 20, 24, 25.
Digestum Novum, 24.
 Dijon, 201, 206.
 Disorders of the schools, 32 ff.
 Diving, 118 f.
Doctrinale, 24, 35.
 Döllinger, I., 253.
 Dogs, 34, 60, 67, 110, 115, 117, 144, 224.
 Dominicans, 23, 42, 44, 46, 47, 48, 57, 58, 60, 96, 121, 133, 198, 213, 227, 228, 229, 231. *See* Inquisition.
 Donatus, 58, 83.
 Douai, 220, 221, 239, 243.
 Douais, C., 193, 196, 208, 228, 233, 238, 240.
 Dräseke, J., 163, 167.
 Drama, the, 69.
 Dream-books, 168 f.
 Drexel, F. X., 169.
 Dualists, 245.
 Du Boulay, C. E., 51.
 Du Cange, C., 62, 199, 217.
 Duel, judicial, 109 f., 259.
 Du Mortier, B. C., 211.
 Dynter, E. de, 220.

 Eadmer, 161.
 E[berhard], archbishop of Salzburg, 189.
 Eberhard I† von Truchsen, archbishop of Salzburg, 238.

- Echard, J., 44, 61, 142, 223, 227, 228.
 Echard, baker of Rheims, 199, 202, 237, 245-255.
 Eclipses, 49.
 Edward II, king of England, 110.
 Edward III, king of England, 22.
 Ehrensberger, H., 160.
 Einhard, 103.
 Elegiac comedy, 130, 143 f., 147.
 Elias, Friar, of Cortona, 131, 153 f., 158.
 Élincourt, *see* Heudicourt.
 Elixir of life, 149.
Emphasis, 185.
 England, 8, 37, 83, 97, 100, 101, 103, 191, 202, 218, 262, 265; Varangians of, 161.
 Enzo, 117.
 Epic, mediæval, 102 f.
 Epiphanius, 167.
 Erfurt, 5, 12, 17, 43, 85, 89; Dominican Annals of, 223, 224.
 Esmein, A., 201.
 'Eternal Gospel,' 37.
 Ethardus, 246. *See* Echard.
 Étienne de Besançon, 69.
 Étienne de Bourbon, 40, 47, 57, 59, 62, 63, 64, 67, 68, 69, 70, 196, 223 f., 230, 236.
 Étienne d'Orleans, *see* Étienne Tempier.
 Étienne de Reims, 43.
 Étienne Tempier, 44.
 Euclid, 100.
 Eudes de Châteauroux, 44, 45, 61, 63, 69, 237.
 Eudes de Sully, 66.
 Eugene III, pope, 184, 189.
 Eustratius of Nicaea, 163.
 Evil-Merodach, 121.
 Evrard de Béthune, 24.
 Examinations, for degrees, 51-54, 87; of suspected heretics, 223, 225 f., 230, 234-237.
 Exchequer, the, 122 f., 145, 264.
 Excommunication, 215, 235, 237.
Exempla, Chapter II; Frederick II in, 126; bibliographical note, 40.
Exordium, 3, 181, 183, 187.
Expositiones Evangeliorum Domini-corum, 43.
 Eystein, Norwegian archbishop, 95.
 Ezhardus, 246. *See* Echard.
 Fabricius, W., 85.
 Faenza, 12, 180, 183; canon of, 180.
 Fairs, 99, 198, 223, 235.
 Falconry, 108, 110-117, 119, 127, 131, 132.
 Faral, E., 128, 191.
 Fermo, 174.
 Festa, N., 125.
 Feudalism, 109.
 Ficker, J., 208, 237.
 Fictitious letters, 3 f., 137 ff., 147, 187 f., 191.
 Finke, H., 211, 254.
 Fishing, 118 f.
 Fitting, H., 26, 177, 178, 179.
 Flanders, 195, 198, 199, 202, 205, 213, 219, 226, 229.
 Fleury, 191.
 Floggings, 52, 54.
 Florence, 19, 138; heretics of, 208.
Flores dictaminis, 182, 184.
 Förster, M., 83.
 Foix, count of, *see* Gaston Phébus.
 Forfeiture of property, 240 f.
 Formularies, Chapters I, VI, IX, pp. 197 f.
 Foulques de Neuilly, 203.
 Fournier, M., 8, 77.
 Fournier, P., 194, 201.
 France, 8, 97, 98, 102, 177, 183, 190, 191, 192, 218 f., 232; Northern France, 193-244, 254 f.; Southern France, 234, 238.
 Franche-Comté, 26, 213.
 Franchini, V., 130.
 Francis of Assisi, 103.
 Franciscans, 96, 131, 133, 203, 228, 229.
 Frater Helya, *see* Elias.
 Frati, L., 119.
 Frederick of Antioch, 130.

- Frederick I Barbarossa, emperor, 97, 101, 129, 132, 183, 189, 190, 191.
 Frederick II, emperor, 97, 108, 110, 111, 112, 117, 119, 124-147, 148, 158, 180, 208; Crusade of, 115; *De arte venandi cum avibus*, 112-116, 127; *Magna Curia*, 125, 128 f., 139.
 Frederichs, J., 195, 202, 210, 220, 228, 239.
 Fredericq, P., 193, etc.
 Freeman, E. A., 161.
 Frenken, G., 40, 47, 63.
 'Frere Robert,' 212.
 Friar Robert, *see* Robert le Bougre.
 Friars, migratory character of, 96.
 See Dominicans, Franciscans.
 Friedländer, L., 93.
 Friesach, 209.
 Froissart, 110.
 Fulco, 144.
 Furniture, 64.
 Furnivall, F. J., 78.
 G., Master, 141, 154.
 G., 'Bononiensis ecclesie canonicus,' 184.
 G., canon of Chablis, 205.
 G. Cremonensis, 175.
 G., canon of Langres and priest of Mussy, 207.
 G., *prepositus* of Lucca, 185.
 G., archbishop of Milan, 185.
 G., student at Orleans, 26.
 Gace de la Buigne, 110.
 Gaeta, 136.
 Galen, 54.
 Galicia, 103.
 Galileo, 47.
Galliana ecclesia, 179.
 Gambling, 34, 58, 59, 107.
 Games of schoolboys, 90 f.
 Ganszyniec, R., 167.
 Ganymede, 73.
 Gariopontus, 169.
 Garufi, C. A., 133, 150.
 Gaston Phébus, count of Foix, 110.
 Gaudenzi, A., 2, etc.
 Gaufridus, canonist, 25.
 Gaufridus, dean of Saint-Quiriace, 216.
 Gautier II, bishop of Autun, 206.
 Gautier de Château-Thierry, 39, 44, 45, 46, 49, 55, 57, 59, 60, 65, 70.
 Gautier Cornut, archbishop of Sens, 218, 228, 230, 235.
 Gautier, bishop of Nevers, 207.
 Gay, H. N., 265.
 Gaza, 228.
 'Geber,' 157. *See* Jabir.
 Gelasius II, pope, 172.
 Geoffrey of Vinsauf, 191.
 Geoffrey of Viterbo, 141.
 Geoffroy de Courlon, 223, 224.
 Geometry, 47.
 George of Gallipoli, 125.
 George, Mrs. M. D., 122.
 Gérard de Frachet, 226, 227, 228.
 Géraud, H., 81.
 Germany, 96, 101, 103, 117, 124, 125, 171, 188, 190, 208; German *dictatores*, 188.
 Gervase of Melkley, 191.
Gesta Treverorum, 253, 255.
 Ghellinck, J. de, 177, 192.
 Ghent, 17.
 Ghibelline histories, 132.
 Gifts to teachers, 87, 135.
 Gilds, 263 f.
 Gile, 'the abbess,' 215 ff.
 Gilles de Muisit, 219.
 Giordano Ruffo, 112, 130.
 Giraldus Cambrensis, 32.
 'Girosius the Spaniard,' 111.
 Giry, A., 98.
 Glixelli, S., 78.
 Glorieux, P., 255.
 Gobert de Coinci, prior of Vic-sur-Aisne, 219.
 Gocelin of Canterbury, 161.
 Godefroi de Fontaines, bishop of Cambrai, 220 f., 230.
 Göttingen, 262, 267.
 Goliardi, 37, 72, 97, 141.
 Golubovich, G., 158.
Gospel according to Marks of Silver, 139.

- Gospels, the, 43.
 Gottlieb, T., 172.
 Grabmann, M., 131 f., 177, 192, 232.
 Graefe, Friedrich, 133.
 Grammar, 24, 46, 73, 77, 82 f., 90, 140 f., 147.
 Grand-Pont, the, Paris, 82.
 Gras, N. S. B., 99.
 Gratian, 54, 177.
 Grattius, 107.
 Grauert, H., 144.
 Gray, H. L., 265.
 Great Khan, the, 111.
Grecismus, 24.
 Gregory I, pope, 179, 250.
 Gregory VII, pope, 173.
 Gregory VIII, pope, 188.
 Gregory IX, pope, 8, 36, 127, 133, 136, 158, 197, 202, 204, 205, 206, 208, 209, 210, 212, 214, 217, 218, 233, 238, 241, 243.
 Greven, J., 40, 47, 63.
 Grillon, antiquary of Provins, 224.
 Grimaldus, 'count of the Sacred Palace,' 111.
 Gross, C., 36, 37, 262-268.
 Gross, Lottie (Wolf), 262.
 Gross, Louis, 262.
 Grossolanus, *see* Peter Chrysolanus.
 Guala, bishop of Brescia, 209.
 Gubbio, 114.
 Günthner, S., 9.
 Guérard, B., 42.
 Guesnon, A., 222.
 Güterbock, F., 132.
 Gui de Bazoches, 9, 18.
 Guiard de Laon, 43, 44, 47, 48, 49, 53, 55, 56, 59, 60, 63, 66, 69.
 Guicennas, 117, 130 f.
 Guichard, 246, 248. *See* Echard.
 Guido, pupil of Alberic, 173.
 Guido of Bologna, 183.
 Guido Bonatti, 140.
 Guido Faba, 7, 8, 9, 11, 19, 20; *Dictamina rhetorica* of, 7, 12, 22, 24, 30, 32, 34; *Epistole* of, 7, 9, 11, 17, 20, 32.
 Guillhiermoz, P., 237.
 Guillaume d'Auvergne, 44.
 Guillaume d'Auxerre, friar, 244.
 Guillaume le Breton, 70, 237.
 Guillaume de Bussi, bishop of Orleans, 223.
 Guillaume de Chartres, 242.
 Guillaume de Donjeon, archbishop of Bourges, 207.
 Guillaume I, archbishop of Rheims, 202.
 Guillaume de S. Pathus, 242.
 Guillaume de Seignelay, bishop of Auxerre, 204.
 Guillaume de la Villeneuve, 62.
 Guines, 118.
 Guiraud, J., 193, 211, 223.
 Guitars, 15, 62.
 Guizenardus, 131.
 Gundfrid, pupil of Alberic, 173.
 Gundulf, bishop of Rochester, 162.
 Guy, H., 222.
 H., emperor, 180.
 Hainaut, 219.
 Hall, H., quoted, 266.
 Halle, 89.
 'Hammer of heretics,' appellation of Hugues of Auxerre, 204; of Robert le Bougre, 212.
 Hanauer, G., 133.
 Hansen, J., 194, 237.
 Hampe, K., 124, 126, 127, 130, 132 f., 134, 135, 136, 139, 140, 144, 149.
 Hapsburgs, 98.
 Harting, J. E., 117.
 Harvard Menorah Society, 266.
 Harvard University, 258, 262-268.
 Haseloff, A., 125, 158.
 Hauck, A., 208, 252, 253.
 Haupt, H., 168, 199, 252, 253, 255.
 Haupt, M., 9.
 Hauréau, B., 5, 34, 36, 41, 42, 43, 44, 45, 47, 48, 50, 55, 56, 58, 59, 60, 62, 65, 69, 70, 76, 77, 201, 245-249, 253.
 Havet, J., 198, 202, 209, 237.
 Hawks, *see* Falconry.
 Hazing, 78, 85.

- Hearne, T., 161.
 Heidelberg, 85, 86.
 Heinemann, O., 5.
 'Heldincourt,' *see* Heudicourt.
 Helen, 31.
 Heller, Emmy, 135.
 Heller, J., 118.
 Hély, *see* Elias.
 Hemmeon, M. de W., 265.
 Henderson, E. F., 122.
 Henner, C., 201, 229, 235, 240.
 Hennesthal, R., 136.
 Henri d'Andeli, 46.
 Henri de Dreux, archbishop of Rheims, 218, 220 f., 223, 230, 238, 249.
 Henri Hukedieu, 222, 229, 233, 235.
 Henri de Villeneuve, bishop of Auxerre, 235.
 'Henricus Bougrius,' 241.
 Henricus Francigena, 5, 175, 178 ff., 184, 186 f., 188, 190.
 Henry of Avranches, 97, 130.
 Henry Dandolo, patriarch of Grado, 165.
 Henry IV, emperor, 173.
 Henry V, emperor, 174, 179, 180.
 Henry VI, emperor, 129, 144.
 Henry II, king of England, 97, 111, 128, 190, 191.
 Henry III, king of England, 97.
 Henry VII, king of England, 30.
 Henry of Pisa, 141.
 Henry of Settimello, 141, 174.
 Herbert, J. A., 40, 41, 50, 51, 63.
 Herbs, 49, 77, 168.
 Heresy, 98; in Northern France, Chapter X; of Echard of Rheims, Chapter XI.
 Hergenröther, J., 163.
 Hermann, Hermannus, *dictator*, 182, 183, 184, 186.
 Herons, 114, 116.
 Hertter, F., 130.
 Hervé, count of Nevers, 204 f.
 Hervé, bishop of Troyes, 204.
 Heudicourt, 220.
 Hildesheim, 5, 95, 188.
 Hinschius, P., 200 f., 208, 233, 236, 237.
 Hippocrates, 54, 169.
 Hiring students, 28, 55, 74.
 Hirzel, R., 84.
 Historiography, Ghibelline and Guellic, 132 f.
 Höfler, K., 180 f.
 Hönger, F., 129.
 Holder-Egger, O., 119, 124, 144, 220.
 Holidays, 22, 81.
 Holtzmann, W., 173, 174.
 Homer, 120.
 Honorius III, pope, 48, 159, 197.
 Hoops, 90, 91.
 Horace, 15, 107.
 Horoscopes, 146.
 Horses, 18, 20, 34, 58, 65, 88, 115, 130, 138.
 Hospitals, 13.
 Hugh of Bologna, *dictator*, 24, 173, 175, 177, 180, 187.
 Hugh of St. Victor, 78.
 Hugo, archpriest of Bondeno, 176.
 Hugo de Fossatis, 203.
 Hugues, abbot of Cluny, 206 f.
 Hugues de La Tour, bishop of Clermont, 215, 230.
 Hugues de Noyers, bishop of Auxerre, 204, 205, 206.
 Huillard-Bréholles, J. L. A., 110, 114, 127, 129, 132, 133, 135, 138, 140, 141.
 Humbert de Romans, 42, 51, 57, 64, 65, 224.
 Hungary, 94.
 Hunting, 107, 110-118, 119, 130, 132.
 Huy, 210.
 Hyecharlus, 246 f. *See* Echard.
 I., pope, 174.
 Iacobus de Benevento, 142 f.
 Ideas, spread of, Chapter IV.
 Inception, inception banquets, 27, 35, 69 f., 74, 86 f.
 Innocent II, pope, 180.
 Innocent III, pope, 183, 186, 188, 197, 201 f., 206, 207, 240.

- Innocent IV, pope, 133, 144, 241, 243.
Innocent Morality, 121.
 Inquest, local, 200, 231.
 Inquisition, the, Chapters X, XI;
 episcopal, 195-208, 230 ff., 245-
 254; papal (Dominican), 195, 205-
 230, 232-244; Spanish, 257, 260 f.;
 writings of H. C. Lea, 193 f., 257-
 261; bibliographical notes, 193, 194.
Institutes, 24, 25.
 Intellectual centres, 94-100.
 International Union of Academies,
 148.
Inventio, 187.
 Ischia, 136.
 Iselius, J. R., 133.
 Isidore of Seville, 107, 161.
 Italy, 8, 83, 95, 97, 98, 124, 125, 171,
 177, 191, 192, 234, 243, 252, Chap-
 ters VI, IX.
 Ivo of Chartres, 182.
 Ivo I, abbot of Cluni, 131.

 Jabir, 148.
 Jacob Anatoli, 125, 132.
 Jacob, E. F., 126.
 Jacob the Jew, master, 157.
 Jacobus Thomasius Gaetanus, 197.
 Jacopo da Benevento, 142 f.
 Jacopo da Cessole, 121, 122.
 Jacques, student at Chartres, 11.
 Jacques, Dominican friar, 215, 229.
 Jacques de Lausanne, 41.
 Jacques de Vitry, 40, 46, 47, 49, 50,
 55, 59, 63, 64, 65, 67.
 Jähns, M., 109.
 James I, king of Aragon, 255.
 James, St., 103.
 James of Venice, 99.
 Jealousy, academic, 56.
 Jean des Alleux, *see* Jean d'Orleans.
 Jean de Blois, 47, 48.
 Jean Chevalier, 233, 235.
 Jean de Joinville, 242.
 Jean de La Rochelle, 47.
 Jean de Montlhéry, 55, 57, 58, 60, 64.
 Jean d'Orléans, 44, 46, 47.
 Jean d'Outremeuse, 219 f.

 Jean de St. Gilles, 47.
 Jean de S. Pierre, 233.
 Jean de Saint-Victor, 223 f.
 Jeanne, countess of Flanders, 221,
 243, 248, 249.
 Jeanroy, A., 222.
 Jeremiah, 121.
 Jerome, St., 179, 250.
 Jerusalem, 103, 160, 161, 166.
 Joachim of Fiore, 144.
 Joachite friars, 144.
 Job, 51.
 Jocius, archbishop of Tours, 190.
 Jodoinus, prior of Mazille, 222.
 Johannes de Argussa, 136, 139.
 John le Blund, 78.
 John, king of England, 95, 191.
 John of Gaeta, 172.
 John of Garland, 38, 60, 64, 66, 76,
 77, 237; *Morale scolarium*, 76, 77,
 78; *Dictionarius*, 81, 82.
 John of Otranto, 125.
 John Peckham, 70.
 John Phurnes, 163.
 John XXI, pope, 131.
 John, archbishop of Prague, 18, 22.
 John of Salisbury, 11, 101, 121.
 John the Scot, 86.
 John of Sicily, 135.
 John of Toledo, master, 144.
Jongleurs, 97, 103.
 Jørgensen, Ellen, 174.
 Joseph, pilgrim monk, 160 ff.
 Jubinal, A., 212.
 Julius Caesar, 74, 124.
 Junker, H. F. J., 83.
 Jusserand, J. J., 101, 109.
 Justinian, *see* Code, Digest, Institutes.

 Ka., master, 167.
Kaisersage, 124.
 Kalbfuss, H., 182.
 Kantorowicz, E., 124, 126, 134, 146.
 Kantorowicz, H., 133.
 Karl, L., 129.
 Karst, A., 128.
 Kaufmann, A., 196.
 Kehr, P., 135, 165.

- Kervyn de Lettenhove, Baron, 81.
 'King Dancus,' 111.
 'King Harold's books,' 111.
 'King Ptolemy,' 111.
Kiranides, 167 f.
 Klapper, J., 7, 36, 51.
 Kleeman, G., 188.
 Köhler, H., 208.
 Konrad von Lützelhard, 117, 131.
 Krabbo, H., 174.
 Krohn, R., 172.
 Krumbacher, K., 125, 163, 166.

 L., canon of Geneva, 184.
 L., emperor, 174.
 Labbé, P., 204.
 La Cava, abbot of, 238.
 La Charité-sur-Loire, 201, 204 ff., 210,
 213 f., 217, 219, 229, 233, 234, 239,
 240, 242.
 Lacombe, G., 43.
 Lambert of Ardres, 118.
 Lambert, provost of St. Martin's at
 Ypres, 218.
 Lambley, Kathleen, 83.
 Lanfranc, 160.
 Langlois, C.-V., 1, 2, 6, 8, 10, 22, 38,
 41, 57, 66, 70, 108, 131, 183, 190,
 191, 193, 224.
 Langres, 203; diocese of, 204.
 Languedoc, 195, 202, 206, 233, 241,
 243, 244.
 Laon, 12, 21, 192, 248, 249, 250, 254.
 Lapsley, G. T., 265; quoted, 266.
 La Roncière, C. de, 240.
 Lateran, council of (1215), 200, 201,
 215, 219.
 Latin, Mediaeval, 105 f.
 Lauer, P., 96.
 Laundresses, 57 f., 74.
 Laurentius of Aquileia, 7, 24, 25, 30,
 32, 33.
 Lausanne, 94.
 Lavis, E., 98.
 Law, 24-27, 47, 50, 85, 140, 146, 180,
 192, 256, 259, 265; as a branch of
 rhetoric, 170; feeling towards law-
 yers, 47 f.

 Lea, H. C., 32, 197 f., 230, 232, 233,
 234, 235, 236, 238, 239, 256-262;
 Superstition and Force, 256, 259;
 History of the Inquisition of the
 Middle Ages, 193 f., 195, 200, 202,
 208, 221, 223, 228, 237, 240, 244,
 257, 259 f., 261; *History of the*
 Inquisition of Spain, 257, 260 f.
 Lea, Isaac, 256.
 Lea, Nina, 258.
 Leach, H. G., 95.
 Lebeuf, J., 205, 235.
 Lecoy de la Marche, A., 38, 39, 40,
 44, 45, 46, 53, 55, 61, 63, 70, 196,
 223, 253.
 Lectures, ordinary and cursory, 53;
 hours of, 65.
 Leda, 31.
 Lehmann, P., 73, 139.
 Leipzig, 5, 30, 84, 262.
 Lempp, E., 158.
 Leonard of Pisa, 130.
 Leonardo da Vinci, 124.
 Leo Tuscus, 169.
 Lérida, 8, 12.
Lerne or be Lewde, 79.
 Lers, 221.
 Lespinasse, R. de, 204.
 Letter-writing, 1-35, 133-140, 170-
 192.
 Levi, E., 102.
Liber luminis luminum, 150, 155, 157.
Liber de moribus hominum et officiis
 nobilium, 121.
Liber particularis, 149.
Liber thesauri occulti, 168.
Licentia legendi, 51.
 Liebermann, F., 210, 263.
 Liège, 200, 201, 255.
 Lille, 199, 221, 239.
 Limoges, 227.
 Lindner, T., 95.
Literae Cantuarienses, 27, 30.
 Living, dearth of, 11 f.
Livre du Roi Modus et de la Reine
 Ratio, 110.
 Livy, 93.
 Lobbes, 221.

- Localism, 92, 93 f.
 Logic, 25, 46, 73.
 Lombardy, 181, 206, 209, 235, 239.
 London, 5, 99, 266 f.
 Longnon, A., 222.
 Loserth, J., 179, 189.
 Louis VII, king of France, 190.
 Louis VIII, king of France, 240, 248 f.
 Louis IX (St. Louis), king of France,
 42, 77, 197, 203, 217, 240, 242.
 Louvain, 5, 23, 32.
 Luard, H. R., 210, 225.
 Lucan, 31, 68.
 Lucca, 95, 174.
 Luchaire, A., 14, 34, 190.
 Lucius III, pope, 201.
 Lucrative sciences, 25, 48, 57, 77.
 Ludwig, F., 101.
 Lunt, W. E., 265.
 Lycurgus, 122.
- M., abbot of Fruttuaria, 184.
 M. Martre, knight, 17.
 McIlwain, C. H., 265.
 MacKay, Dorothy L., 51.
 Macrobius, 169.
 Madden, D. H., 110.
 Madden, F., 210, 225.
Magna Curia, 125, 128, 129, 139.
 Magic, 194, 220.
 Mai, A., 166.
 Maillet, H., 200, 237.
 Mainardino da Imola, 132.
 Mainz, 6, 49, 209.
 Maitland, F. W., 258, 263.
 Majorca, 157.
 Manacorda, G., 2, 73, 171, 177.
 Manasses de Seignelay, 203.
 Mandonnet, P. F., 203, 232, 244.
 Manfred, king of Sicily, 114, 128, 132,
 133.
 Manicheans, 198, 199, 202, 223, 245.
 Mansi, J. D., 254, 255.
 Mantua, 182.
 Manuals for students, Chapter III.
 Manuel I Comnenus, Byzantine emperor, 97.
 Marches, the, 8.
- Marco Polo, 111.
 Margam, 95.
 Margaret, queen of France, 220.
 Marguerin de la Bigne, 51.
 Marigo, A., 141.
 Martin, St., 248, 249.
 Martino da Fano, 75.
 Masново, O., 163.
 Masquerades, 70.
 Massachusetts Historical Society, 262.
 Massebieau, L., 84.
 Masters, Chapters I, II, III, VI, IX;
 faults of, 54 ff.
 Mattei-Cerasoli, L., 133.
 Matthew Paris, 95, 199, 210, 212, 219,
 221, 222, 225, 226, 227, 236, 242,
 243.
 Matthew of Vendôme, 9, 10, 13, 14,
 18, 34, 191.
 Matthieu de Lauvin, 220.
 Matton, A., 251.
 Maximilian I, emperor, 84, 98.
 Maycock, A. L., 193.
 Meaux, 190.
 Mediaeval Academy of America, 105.
 Medicine, 26, 27, 47, 50.
 Meister, A., 196.
 Mély, F. de, 167.
 Mendicant Orders, the, 212, 215, 242.
Menensis ecclesia, 179.
 Merchants, travel and education of,
 98; heretics numerous among, 198;
 watched by the Inquisition, 234 f.
 Mercier, L., 107, 111.
 Merlin, 144.
 Metals, theory of, 149.
 Metz, 199, 253, 255.
 Meung-sur-Loire, 191.
 Mexico, 84.
 Meyer, P., 255.
 Meyers, E. M., 75, 140.
 Meylan, H., 43.
 Michael, E., 208.
 Michael, St., 95.
 Michael Scot, 100, 126, 129, 132, 144,
 169; *Alchemy* ascribed to, 148-159;
 Liber particularis, 149; *Liber luminis*
 luminum, 150, 155, 157.

- Michel de Cerizy, 218, 232, 233.
Microcosmus, 180.
 Milan, 75, 180, 181, 189, 221, 246.
 Mileto, 95.
 Milo de Châtillon-Nanteuil, bishop of Beauvais, 254.
 Minorites, 65. *See* Franciscans.
 Miraumont, 222.
 Moamyn, writer on falconry, 111, 117, 129.
 Modena, 75, 174.
 Moeller, C., 194, 237.
 'Moimer,' 223.
 Molin, H., 130.
 Molinier, A., 45.
 Molinier, C., 196, 198, 233, 245.
 Monaci, E., 140, 142.
 Monasteries as intellectual centres, 94 ff.
 Money, requests for, 7-15.
 Monod, G., 263.
 Montagnone, G. di, 142.
 Mont-Aimé, 222, 230, 239, 243.
 Monte Cassino, 186.
 Monte Santangelo, 95.
 Montfaucon, B. de, 166.
 Montmorillon, 223.
 Montpellier, 5, 9, 23, 26, 27, 50.
 Mont-Saint-Michel, 95.
 Moore, C. H., 83.
 Moralities, 120 f.
 Morandi, L., 140.
 Moravia, 16.
 Morelli, C., 171.
 Morris, W. A., 265, 266.
 Mortet, V., 42.
 Moses of Bergamo, 99.
 Mosher, J. A., 40.
 Mount Cenis, 95.
 Mousket, P., 198, 199, 210 f., 219 f., 221, 223, 224, 229, 230, 239, 243.
 Müller, K., 198, 199, 245, 252, 253.
 Müller, K. E., 199.
 Munich, 6, 12.
 Munro, D. C., 40.
 Muratori, L. A., 128, 129, 143.
 Murray, H. J. R., 120, 121.
Murus largus, 238.
Murus strictus, 238.
 'Musciac,' 207.
 Music, Arabic, 100; *cantus Uticensis*, 95; *filie carminis*, 69; instrumental, 15, 28, 33, 62; vocal, 28, 62, 70; singing-lessons, 88.
 Naples, 5, 7, 26, 30, 75, 129, 136, 138, 139, 140.
 Narbonne, 33.
Narratio, 3, 9, 171, 181, 187.
 'National hands,' 95 f.
 Nebuchadnezzar, 169.
 Necromancy, 68.
 Neilson, G., 110.
 Nemesianus, 107.
 Netherlands, 98, 231.
 Nevers, 201, 203, 206; diocese of, 203.
 Nicholas of Breslau, 21.
 'Nicholas the Fish,' 118.
 Nicholas of Iamsilla, 128.
 Nicholas, St., 34, 63; feast of, 34, 69; miracles of, 95.
 Nicola della Rocca, 133, 134 f.
 Nicolaitanes, 69.
 Nicolas de Brie, bishop of Troyes, 223, 230, 235, 239.
 Nicolas de Nonancourt, 45, 55, 60, 69.
 Nicolas de Roie, bishop of Noyon, 218, 220, 230, 233.
 Niemann, G., 84.
 Niese, H., 125, 127, 134, 140.
 Nietzsche, F., 124.
Nieules, 66.
 Nigel Wireker, 73.
 Nivernais, 198, 203, 204, 222.
 Nominalism, 85, 86.
 Non-residence, 48 f.
 Norman Conquest, 161.
 Normandy, 95, 244, 266.
 Norway, 111.
Notae Sancti Amati Duacenses, 221.
 Note-taking, 56.
 Notre Dame, 42, 58.
 Novalese, 95.
 Novati, F., 79.
 Noyon, council of, 254; diocese of, 232, 241.

- O., bishop of Alba, 184.
 Odo of Cheriton, 41, 63.
 Odofredus, 76, 134.
 Oliger, L., 41, 65, 126.
 Omont, H., 37, 43, 185.
 Ordeal, the, 259.
 Ordericus Vitalis, 95.
 Orfinc of Lodi, 130.
 Orleans, 5, 7, 8, 15 f., 17, 21, 22, 24, 25, 26, 27, 32, 33, 60, 61 f., 70, 171, 186, 190, 191, 198, 203, 244, 248, 249.
 Otto III, emperor, 95, 97.
 Otto of Freising, 49.
 Ovens, 246 f.
 Overstudy, 29.
 Ovid, 68, 87, 186.
 Owst, G. R., 38, 39, 64.
 Oxford, 5, 6, 10, 12, 27, 30, 34, 37, 50, 55, 202.
- P., archbishop of Milan, 185.
 P. de Roma, *see* Paschal the Roman.
 P. of Salins (Jura), 26.
 P., bishop of Vercelli, 185.
 Padua, 5, 22, 44.
 Paetow, L. J., 24, 38, 76, 81.
 Palacky, F., 34.
 Palermo, 97, 140.
 Palestine, 99, 103.
 Palladius, 119.
Palmiterium, 90.
 Pamiers, 196.
 Paoli, C., 199.
 Paolucci, G., 129, 138.
 Papal formularies, 188, 197 f.
 Pappadopoulos, J. B., 125.
 Parchment, 10, 11, 17, 35, 36, 50.
 Paris, 5, 6, 78, 82, 99, 201, 203, 222, 232, 244, 262; council of, 231, 248 f.; prior of, 229; University of, 9, 10, 11, 12, 17, 18, 21, 23, 25, 26, 27, 29, 30, 32, 36-71, 73, 76, 77, 190, 192.
 Parma, 114, 174.
 Parmentier, C. A., 201.
 Parvis Notre-Dame, 82.
 Paschal II, pope, 174.
 Paschal the Roman, 165-169.
Paston Letters, 24, 27.
 Pastorello, E., 143.
 Pastoureaux, the, 212.
 Patetta, F., 110.
Pâtissiers, 82.
 Pattison, M., 70.
 Paul, Camaldolese monk, 188.
 Paul the Deacon, 121.
 Paul, St., 51.
 Pauli, R., 263.
 Pauw, N. de, 17.
 Pavia, 5, 7, 26, 178, 180, 186.
 Pedro de Albalat, archbishop of Tarragona, 238.
 Peiper, R., 43, 130.
 Pelaez, M., 142.
 Pelagius II, pope, 162.
 Penance, 237 ff.
 Percin de Montgaillard, J. J. de, 210.
 Périgord, 103.
 Perkins, C., 265.
 Péronne, 220, 222.
 Peter of Blois, 97, 191.
 Peter of Capua, 206.
 Peter Chrysolanus, archbishop of Milan, 163 ff.
 Peter, *dictator*, 179, 186.
 Peter of Eboli, 129, 141.
 Peter Mosellanus, 84.
 Peter de Remerico Monte, 45.
 Peter of S. Severino, 178.
 Peter, *socius infidelis*, 31 f.
Petitio, 3, 9, 181, 187.
 Petronilla of Guines, 118.
 Petronilla of La Charité, 233, 234, 236.
 Petrus Alphonsi, 78.
 Petrus de Crescentiis, 119.
 Petrus Diaconus, 173.
 Petrus de Ebulo, 129, 141.
 Petrus de Hallis, 13, 19, 25.
 Petrus Hispanus, 131.
 Pfändler, G. W., 107.
 Pharaoh, 169.
 Philadelphia, Pa., 256, 259.
 Philip of Alsace, count of Flanders, 202.

- Philip II Augustus, king of France, 95, 98, 186, 203.
 Philip VI, king of France, 242.
 Philip de Grève, 43, 248. *See* Philip, chancellor of Paris.
 Philip, chancellor of Paris, 43, 45, 46, 47, 48, 55, 56, 60, 61, 62, 230, 237, 245, 247 f., 250, 253, 254; *De Psalterio*, 248; *Dominicales*, 248, 249; *Festivales*, 248, 249.
 Philippe de Harvengt, 29.
 Philosophy, 47, 180.
 Picardy, 66, 94.
 Pichler, A., 109.
 Piero della Vigna, 128, 129, 133 f., 138, 140 f.
 Pieron Malkasin, 220.
 Pierre de Bar-sur-Aube, 70.
 Pierre de Corbeil, archbishop of Sens, 203, 206 f.
 Pierre de Cuisy, bishop of Meaux, 233.
 Pierre Danvin (Darvin), 229.
 Pierre de Jaucourt, 216.
 Pierre le Mangeur, 59.
 Pierre de Poitiers, 42, 46, 59.
 Pierre, prior of St.-Jean, 173.
 Pierre Vogrin of Souvigny, 205, 214 f., 233, 234, 237.
 Pietro de' Boattieri, 1, 140.
 Pilgrimages, 94, 160-163; as penance, 206.
 Pirenne, H., 93, 98, 199, 211.
 Pisa, 174.
 Pitra, J. B., 40, 44, 49, 55, 56, 59.
 Planets, 152 f., 168.
 Plato, 100.
 Plautus, 143.
 Plehn, H., 212.
 Pliny, 107.
 Pluralism, 48, 249.
 Podestà, the, 130.
Poena confusibilis, 238, 239.
 Poète, M., 99.
 Poetry, under Frederick II, 129, 130, 141-146; pedagogical, 79, 81; Goliardic, 37, 72, 97, 141.
 Poitiers, 111.
 Ponce de Provence, 7, 17, 21, 22, 23, 24, 25, 26, 29, 31, 32, 33.
 Ponce de Villars, bishop of Mâcon, 206.
 Pontoise, 244.
 Poole, R. L., 11, 101, 122, 172, 188.
 Poor Men of Lyons, 250, 252. *See* Waldenses.
 Poor students, 63.
 Porcher, J., 73.
 Porter, A. K., 95, 102, 103.
 Powicke, F. M., 95, 191.
 Pozzuoli, 119, 129.
 Prague, 5, 22, 30.
 Prat, 24.
 Preaching, *see* Sermons.
 Prebends, 48 f., 54, 58, 249.
Precepta prosaici dictaminis secundum Tullium, 19, 184.
 Preger, W., 252, 253.
 Presents to masters, 87, 135.
 Pressutti, P., 159, 197.
 Prévostin (Prepositinus), 42, 43, 45, 49, 59, 60, 69.
 Pride, sins of, 49 f.
 Prigent, R., 8.
 Priscian, 24, 47, 54, 180.
 Prisons, 13, 53, 220, 235, 238, 240; the bishop's prison at Paris, 77, 232.
Probatio, 171.
 Procession of the Holy Spirit, 163 ff.
Premium, 171.
 Prophecy, 144 f.
 Prost, B., 110.
 Provence, 109, 125, 198, 210.
Proverbium, 3, 9.
 Provville, J. J. P., 222, 226, 227, 229.
 Provincialisms, 93 f.
 Provins, 215 f., 223, 224, 241; council of, 231.
 Pseudo-Boethius, 73, 74.
 Pseudo-Cato, 17, 78, 169.
 Pseudo-Dositheus, 83.
 Pseudo-Plautus, 143.
 Ptolemy, Claudius, 97, 100.
 Pyrrhus, 73.
 Pythias, 121.

- Quadrivium*, 46, 74.
 Quétif, J., 44, 61, 142, 223.
 Quintilian, 170.
- R., professor of grammar at Naples, 136.
 R. Pictus, 136.
 R., archbishop of Pisa, 185.
 Rajna, P., 142.
 Ralph, archbishop of Canterbury, 161.
 Ralph of Coggeshall, 202.
 Ralph of Laon, 174.
 Ralph, bishop of Nevers, 205, 215.
 Ralph de Torote, bishop of Verdun, 223.
 Rand, E. K., 106.
 Rashdall, H., 1, 32, 36, 42, 53, 57, 59, 64, 177.
 Rasis, 157.
 Ravenna, 180.
 Raymond, master, 232.
 Raymond de Peñafort, 209, 233, 238.
 Raymond, archbishop of Toledo, 96.
 Raynaldus, 130.
 Raynaud, G., 66.
 Regensburg, 189.
 Reggio, 174.
 Reginald the son of Eymund, 120.
 Registers, papal, publication of, 197.
 Reichert, B. M., 227.
 Reichling, D., 24.
 Reiffenberg, Baron de, 210.
 Reinach, S., 194.
 Reinald, archbishop of Cologne, 189.
 Reinhardsbrunn, 188.
 Relics, 160-163.
 Renan, E., 101.
 Renaud de Montauban, 120.
 René, king of Provence, 109.
Rethorica Poncii, 30.
 Reusch, F. H., 194, 261.
 Reuss, E., 255.
 Revels, 69 f.
 Rheims, 136, 179, 190, 200 f., 202, 218, 245; council of, 246; heresy at, 245-255.
 Rhetoric, Chapters I, VI, IX, pp. 46, 47, 140, 147.
- Rhine, the, 95.
 Rhone, the, 252.
 Riant, P., 161.
 Richard of Bury, 34.
 Richard II, king of England, 23, 98.
 Richard, Minorite, 62.
 Richard of San Germano, 141.
 Richard, judge of Venosa, 130, 142, 144.
 Richardson, H. G., 122.
 Richer de Senones, 211 f., 225 f., 233, 236.
 Rieder, K., 135.
 Ries, R., 129.
 Ripoll, T., 197.
 Roads, 93, 101 ff.
 Robberies, 12, 18 f., 35, 68.
 Robert d'Auxerre, 204.
 Robert le Bougre, 193-244.
 Robert de la Galie, 221.
 Robert de Lauvin, 220.
 Robert le Petit, *see* Robert le Bougre.
 Robert de Sorbon, 42, 46, 47, 48, 49, 51, 53, 55, 57, 58, 64, 65.
 Robert de Torote, bishop of Langres, 223.
 Rochester, 160 ff.
 Rockinger, L. von, 2, 6, 8, 27, 29, 171, 172, 180, 181.
 Rodenberg, C., 136.
 Röding, Anna, 119.
 Röhricht, R., 228.
Römerzüge, 97.
 Roffredo of Benevento, 109, 110, 140 f.
 Roger Bacon, 83, 159.
 Roger of Hoveden, 97.
 Roger, king of Sicily, 97, 111, 125, 185.
 Rogers, J. E. T., 37.
 Roland, 103.
 Romagna, the, 8, 181, 182.
 Romagnoli, G., 142.
Roman des déduis, 110.
Romans dels auzels cassadors, 117.
 Romanus, bishop of Gurk, 189.
 Rome, 77, 78, 93, 94, 101, 102, 138, 160, 161, 199, 206 f., 209, 248 f.
 Rooms for students, 21 f., 30, 35.

- Rota, E., 129.
 Rouen, 11, 98.
 Royal Historical Society, 262, 264.
 Rudolfus Turonensis, 6, 190.
 Ruelle, C. E., 167.
Ruralium commodorum libri XII, 119.
 Russell, J. C., 62, 97, 130, 159.
 Rutebeuf, 38, 60, 212.

 St. Albans, 95.
 Saint-Denis, 5, 34.
 Saint-Évroult, 95.
 Saint-Germain-des-Prés, 50, 60.
 Saint-Jacques, 227.
 St. Malo, 203.
 Saint-Médard, annals of, 230.
 St. Nicholas of Bari, 95.
 Saint-Pierre-le-Moutier, 217.
 St. Quentin, 244.
 Saint-Quiriace at Provins, 215 f., 241.
 St. Victor, 227.
 S. Proculo, Bologna, 150.
 S. Salvatore, Lucca, 95.
 Saints' lives, 147, 172.
 Salamanca, 5, 7, 30.
 Salerno, 18, 73.
 Salimbene, 119, 124, 127, 140, 141, 144.
 Sallust, 107.
Salutatio, 3, 171, 181, 185, 187.
 Salzburg, 189.
 Samuel Karoch of Lichtenberg, 84.
 Sant' Eufemia, 95.
 Santiago de Compostela, 19. *See* Compostela.
Sapientes, 218, 229 f.
 Saracens, 103, 157.
 Sarton, G., 148.
 Sarzana, 157.
 Sathas, K. N., 168.
 Savagnone, F. G., 133.
 Savastano, L., 119.
 Savio, F., 163.
 Saxons, 103.
 Saxony, 87, 89.
 Schard, S., 133.
 Schaube, A., 199.
 Schedel, H., 143.

 Scheffer-Boichorst, P., 132, 210.
 Scheler, A., 81.
 Schiavo di Bari, 142.
 Schlesinger, L., 34.
 Schneidler, B., 132.
 Schmidt, C., 198, 199, 202, 223.
 Schmidt, V., 22.
 Schneider, J. G., 113.
 Schneider, R., 109.
 Schönbach, A. E., 40, 64, 119.
 Schoolmaster's position, application for, 21.
 Schubart, W., 83.
 Schulte, A., 198, 199.
 Schultz-Gora, O., 125.
 Schwob, M., 50.
 Scotland, 162.
 Scriptures, the, 21; Romance versions of, 199, 202, Chapter XI. *See* Bible.
 Sculpture, 102, 103.
 Scylla, 119.
 Secularization, 147.
 Sedgwick, W. B., 191.
 Seine, the, 119.
 Sens, 201, 203, 218, 244.
 Sentence literature, 177, 192.
 Serlon of Wilton, 50.
 Sermons, 172; Paris, Chapter II; of Robert le Bougre, 213 f., 233; of Philip the Chancellor against the Waldenses, Chapter XI.
 Servants of students, 66 f., 82.
 Servasanto da Faenza, 64 f., 126.
 Seven liberal arts, 45 ff., 72.
 Seybolt, R. F., 84, 85.
 Showerman, G., 223.
 Sibyls, the, 144.
 Sicily, 97, 100, 111, 114, 125, 132, 266.
 Siena, 20.
 Sigebert de Gembloux, 219.
 Silesia, 22.
 Simon of Cologne, 157.
 Simon de Montfort, 228, 238.
 Simon de Sancto Germano, royal messenger, 217.
 Simon de Sully, archbishop of Bourges, 204.
 Simon du Val, 244.

- Simonsfeld, H., 6, 190.
 Singer, Dorothea, 148, 159.
 Siragusa, G. B. 129.
 Soissons, 98, 202, 228.
 Songs of the streets, 62.
 Sophisms, 50.
 Souchon, M., 198.
 Spain, 96, 98, 100, 103, 226; Spanish Inquisition, 261.
 Speciale family, 150.
 Spondanus, 227.
 Sport, Latin literature of, Chapter V. *See* Games.
 Stadler, H., 112.
 Stags, 117 f.
 Statius, 68.
 Steele, R., 157.
 Stefano, A. de, 124, 147.
 Stehle, B., 5, 32, 34, 190.
 Steinen, Wolfram von den, 127.
 Stephen, bearer of letters, 176.
 Stephen, bishop of Noyon, 253.
 Sthamer, E., 101.
 Stimson, Dorothy, 100.
 Strasbourg, 199, 209, 253.
 Strohl, J., 114, 127.
 Stubbs, W., 97, 265.
 Students, Chapters I, II, III.
 Studies, 23-27, 45-48. *See* Law, Rhetoric, Theology, etc.
 Study, rules for success in, 56, Chapter III.
 Suchier, H., 255.
 Sudhoff, K., 157.
 Sulla, 121.
 Sullivan, J., 265.
 Sulphur-mercury theory of metals, 149.
 Sutter, K., 6, 7, 31.
 Symmachus, 111.
 Symon, clerk of Thomas of Capua, 136.
 Synodal witnesses, 200, 231.
 Syria, 99, 141.
 Table manners, 78 f.
 Tactics, works on, 109.
 Tamassia, G., 76.
 Tambourines, 62.
 Tannery, P., 167.
 Tanon, L., 195, 200, 201, 208, 220, 228, 233, 235, 236, 237, 239, 240.
 Tarragona, 209; province of, 233.
 Tartars, 95.
 Taverns of Paris, 37.
 Tegernsee, 188.
 Terence, 85.
 Terra di Lavoro, 141.
 Terrisio di Atina, 129, 135, 138, 139, 140, 141.
 Tertullian, 107.
Testes synodales, 200, 231.
Textores, 98, 199, 202.
 Theloe, H., 198, 200.
 Theobald, archbishop of Canterbury, 97.
 Theodore of Antioch, 111, 129.
 Theodore Lascaris, 125.
 Theodoric the Catalan, 129.
 'Theodosius,' 111.
 'Theodotion,' 111.
 Theological disputations, 163-166, 172.
 Theology, 25, 26, 46, 47, 57, 63, 77, 176, 177, 192.
 Theorianus, 165.
 Théroutanne, diocese of, 218, 232.
 Théry, G., 203.
 Thibaut IV, count of Champagne and king of Navarre, 215 f., 224, 241, 243.
 Thisbe, 31.
 Thomas Aquinas, St., 86.
 Thomas Becket, archbishop of Canterbury, 97.
 Thomas Brown, master, 97.
 Thomas de Cantimpré, 196, 220; *Bonum universale de apibus*, 40.
 Thomas of Capua, cardinal, 135, 198.
 Thomas of Gaeta, 135.
 Thomas Sampson, Oxford scholar, 11.
 Thomasius, master, 197.
 Thompson, J. W., 98.
 Thorndike, L., 131, 167, 168, 232.
 Thornton, H. H., 126.
 Thuringia, 8, 12.
 Thurot, C., 24, 26, 188.

- Thymo of Erfurt, 11, 29.
 Tilander, G., 117.
 Tillemont, S. le Nain de, 196, 217, 243.
 Tiraboschi, G., 163, 174.
 Tobler, A., 210.
 Toledo, 100, 103, 156, 157 f.
 Torraca, F., 126, 129, 135, 138, 140.
 Tortona, 184.
 Torture, 259.
 Toufflers, 221.
 Toul, 199, 253.
 Toulouse, 5, 7, 8, 12, 25, 32; council of, 255; University of, 77.
 Tournai, 211; diocese of, 231, 240.
 Tournaments, 108, 109.
 Tours, 27, 190; council of, 231: St. Martin's of, 190.
 Tout, T. F., 99, 128.
 Towns as intellectual centres, 98 f.
 Trade routes, 93, 198, 253.
Transcursibiles amici, 30 f.
Translatio, 185.
 Translations, 132, 148, 157, 158, 164-169, 199, 202, 246, 247, 248, 252, 255.
 Transmundus, master, 188.
 Traube, L., 95.
 Travellers, manuals of conversation for, 83.
 Tréguier, 8, 20, 26.
 Trenholme, N. M., 265.
 Trier, 201, 253, 255; council of, 231.
 Trithemius, 199.
Trivium, 26, 46, 74, 177.
 Trois-Fontaines, 210.
 Troy, New York, 262.
 Troyes, 11, 203, 204, 239; diocese of, 232.
 Tullius, 47, 184, 185. *See* Cicero.
 Tunis, 157 f.
 Turberville, A. S., 193, 208.
 Tuscany, 183.
 Uerkvitz, W., 22.
 Ulm, 85.
 Ulysses, 120.
 Universities, Chapters I, II, III, VI, IX; as intellectual centres, 99 f.
 Unterlauff, M., 12.
 Urban IV, pope, 211, 229.
 Urso, grammarian, 171.
 Usury, 199, 217, 239.
 V., bishop of Vicenza, 185.
 Vacandard, E., 193 f., 261.
 Valenciennes, 220.
 Valois, N., 2, 4, 25, 31, 36, 43, 138, 190.
 Varangians, English, 161.
 Varin, P., 231, 254.
 Varro, 107, 119.
 Vasilievsky, V. G., 161.
 Vedder, H. C., 253.
 Vegetius, 108, 109.
 Vendôme, annals of La Trinité de, 222.
Venensis ecclesia, 179.
 Venice, 180.
 Venosa, 95.
 Venus, 4, 187.
 Vercelli, 18.
 Vermin, 110 f.
 Vernet, F., 223.
 Verona, council of, 201.
 Veterinary medicine, 107, 110 ff., 130.
 Vézelay, 201, 203, 205.
 Victor, anti-pope, 183.
 Vidal, J. M., 193.
 Vididenus (?), 131.
 Vienna, 5, 10, 11, 12, 30, 98.
Viensis ecclesia, 179.
 Villard de Honnecourt, 94.
 Vincent de Beauvais, 204.
 Viollet, P., 237.
 Virgil, 31, 68; *Aeneid*, 108.
 Visions, 144 f.
Vitia orationis, 173.
 Vocabularies, 82 f.
 Voigt, G., 255.
 Voops, C. G. N. de, 40.
 W., bishop of Paris, 179.
 W., prior, 213.
 Waddell, Helen, 31, 69.
 Waitz, G., 211, 219, 220.